Access to Injectable Naltrexone for Formerly Incarcerated Individuals During Community Reentry: Advancing the Role of Community Pharmacists in Wisconsin

By

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Abstract

In Wisconsin, opioid use disorder (OUD) is highly prevalent among individuals impacted by the criminal justice system. Medications for opioid use disorder (MOUD), which includes injectable naltrexone, are a key component in the treatment of OUD and especially important for formerly incarcerated individuals as they transition out of correctional facilities and back into their communities. Unfortunately, few formerly incarcerated individuals are able to access MOUD upon community reentry.

Wisconsin community pharmacists are a promising resource for providing injectable naltrexone, as they have the legal capacity to provide injections and are more accessible than other healthcare providers. However, utilization of community pharmacist-provided injectable naltrexone by formerly incarcerated individuals remains low. Additionally, research has not explored community pharmacist-provided injectable naltrexone for formerly incarcerated individuals.

As a result, Aim 1 was used to identify the barriers and facilitators to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals through semi-structured interviews with five different stakeholder groups. Content analysis was to summarize barriers and facilitators based on the Socioecological Model. Overall, participants identified barriers and facilitators across all levels of the Model.

Aim 2 included a legal analysis of Wisconsin statutes and administrative codes with implications for community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. Aim 2 also included an environmental scan of available injectable naltrexone services in Wisconsin. Both the analysis and scan emphasized the importance of increasing the number of MOUD providers and that community pharmacists can be an important resource for formerly incarcerated individuals. The legal analysis also highlighted several statues and codes

that hinder or facilitate availability of or access to community pharmacist-provided injectable naltrexone.

Finally, Aim 3 included three iterative focus groups with community pharmacists. Focus groups were used to inform an intervention that improves access to community pharmacist-provided injectable naltrexone for this patient population. The final intervention included pharmacist-led educational meetings with correctional staff about community pharmacist-provided injectable naltrexone. The participants also discussed specific components of the intervention, as well as anticipated challenges/barriers.

The results of this project can increase access to injectable naltrexone for formerly incarcerated individuals and improve several health and social outcomes for this patient population.

Chapter 1: Introduction

The opioid epidemic has been a major issue in the United States, leading the Department of Health and Human Services to issue a public health emergency in 2017.[1] More than three million U.S. citizens previously or currently suffer from opioid use disorder (OUD), a chronic substance use disorder (SUD) characterized by a problematic pattern of opioid use leading to health and social problems or distress.[2-3] Importantly, over 20% of people with OUD have been involved in the criminal justice system. A report by the Bureau of Justice Statistics shows that 20% of those in jail and 15% of those in prison are there for a drug-based offense, and an estimated two-thirds have a substance use disorder, with up to 25% having a diagnosis of OUD. Additionally, nearly 15% of state prisoners and jail inmates convicted of violent crimes and 40% of those convicted of property crimes reported committing their offense to support a drug addiction. Overall, approximately 7% of state prison and jail inmates were intoxicated from opioids at the time of their offense.[4]

In Wisconsin, the situation has been no different. From 1999 to 2019, there was a 900% increase in opioid overdose deaths.[5] In 2022 alone, there were 1,464 opioid-related deaths.[6] Individuals impacted by the criminal justice system have been significantly impacted. In particular, the Wisconsin Department of Corrections (DOC) reported that opioid overdose hospitalizations increased 89% from 2013 to 2019. In 2019, there were 1,691 hospitalizations from those admitted to probation and 754 from those released from prison. The DOC also reported a 49% increase in opioid overdose deaths from 2014 to 2020. In 2020, there were 325 deaths among those admitted to probation and 276 among those released from prison. Overall, 54% of all people released from prison and 65% of all people admitted to probation had a substance use treatment need. Additionally, opioid offenses were 3.3 times higher in people who

died during probation compared to others on probation and 2.1 times higher in people who died after release from prison compared to others who were released.[7]

Medications for opioid use disorder (MOUD), which include methadone, buprenorphine, and naltrexone, are a key component in the treatment of OUD, in combination with counseling and behavioral therapy. These medications can help normalize brain chemistry, block the euphoric effects of opioids, and relieve physiological cravings.[8] Due to the prevalence of OUD in correctional settings and importance of these medications in treatment, the availability of MOUD within jails and prisons has expanded over the last decade, including within Wisconsin.[9] However, continuation and initiation or MOUD within these systems still remains limited. For example, the U.S. Department of Justice reported that only 23.5% and 19.2% of jails continued or initiated MOUD respectively. In Wisconsin specifically, less than half of jails continued or initiated MOUD.[10] Researchers have continued to acknowledge this issue and explore ways to increase access to these medications within correctional settings.[11-14]

Importantly, continuation or initiation of MOUD is critical for individuals who are transitioning out of correctional facilities and back into their communities. The few days after release from incarceration present the greatest risk of overdose for individuals with OUD, as tolerance to opioids is diminished during incarceration. Individuals may return to using the same doses of opioids despite this reduced tolerance.[15] Formerly incarcerated individuals receiving MOUD are 85% less likely to die due to drug overdose in the first month after release and have a 32% lower risk of rearrest.[16] However, few previously incarcerated individuals are able to access sustainable MOUD treatment upon community reentry, missing a critical tool for rehabilitation and incurring a 40-fold greater likelihood of opioid overdose following release compared to the general population.[17] Previous work has shown that in individuals who are released with doses of

MOUD, less than half continue use in the community. [15,18-20] In the U.S. in 2019, 27.9% of jails provided community link to MOUD. In Wisconsin, community links to MOUD were provided by less than half of jails.[10] The Wisconsin DOC and Division of Adult Institutions (DAI) have created a protocol to assist individuals with OUD in reentry planning. During this process, individuals are educated on treatment options in the community, referrals are made, and reentry staff assist individuals in insurance enrollment.[15] However, prior to the start of this project, several preliminary interviews with Wisconsin correctional staff have demonstrated that this doesn't happen for every individual reentering the community from prison, and planning can be even more difficult for those in jails.

Potential barriers to general MOUD access and use include individual, community, and organizational factors, such as housing and transportation instability, stigma and discrimination, high cost, lack of insurance, or policies that treat MOUD as contraband. Previous research has also identified social barriers, including lack of motivation, competing priorities, and negative perceptions of MOUD.[21-28] Clinical providers and correctional staff have identified high caseloads, limited understanding of MOUD, and lack of coordination as additional barriers.[29-32] However, research focused on how to address these barriers and improve access to MOUD for formerly incarcerated individuals during community reentry remains limited. Please see Chapter 2 for more information on existing barriers, facilitators, and research efforts.

As a result of limited access to MOUD, formerly incarcerated individuals account for up to 50% of overdose deaths in certain regions of the country.[33-34] The Substance Abuse and Mental Health Services Administration (SAMHSA) also reports that 40-50% of these individuals are arrested for a new crime within a year of release, and 75% relapse to opioid use within three months post-release.[35] Rearrest alone can negatively impact health outcomes by keeping those

with OUD in correctional facilities, where conditions such as mental illness are often made worse.[3] Involvement with the criminal justice system can block access to educational opportunities and decrease a person's ability to gain and maintain employment. Beyond negatively impacting the ability to address basic healthcare needs, these factors can worsen an individual's mental health, decrease self-confidence, and lead to social withdrawal. Additionally, the impacts of rearrest extend into families and communities. For example, children whose parents are affected by the criminal justice system are more likely to suffer from psychological problems and antisocial behavior, face issues in school, and be involved in criminal activity themselves.[36-37] Furthermore, a lack of access to MOUD during community reentry is tied to racial and ethnic disparities, as Black, Hispanic, and Latinx individuals are disproportionately impacted by this problem.[38-39]

As mentioned, three medications have been approved by the U.S. Food and Drug Administration (FDA) for treating OUD, one being naltrexone. Naltrexone is a full antagonist medication that binds to and blocks opioid receptors in the brain. Because the medication does not stimulate these receptors, it does not cause physiological dependence or intoxication. Naltrexone is available in an extended-release injection, and the effects of this formulation last for 28 days.[40] When it comes to justice-impacted individuals, injectable naltrexone has been shown to improve retention in treatment, reduce re-incarceration, improve opioid abstinence, and reduce opioid relapses. Additionally, because of its long-lasting duration and lack of abuse potential, injectable naltrexone has become an accepted treatment option for justice-impacted individuals.[41] In Wisconsin, 84% of jails offering MOUD offered naltrexone, with an average of 15 individuals being served. Additionally, 100% of prisons offering MOUD offered naltrexone, with an average of five being served. Over the last several years, several injectable naltrexone

programs have been implemented in Wisconsin correctional facilities.[15] Importantly, providers do not require special licensure or certification to prescribe naltrexone.[40] Additionally, since 2019, community pharmacists in Wisconsin have the authority to dispense and administer these injections.[42]

In addition to their ability to dispense and administer naltrexone injections, since 2021, Wisconsin community pharmacists are recognized as non-physician providers under Medicaid, authorizing them to bill and be reimbursed through Medicaid for medical services provided within their scope of practice.[43] Wisconsin law also provides physicians with authority to use a collaborative practice agreement to delegate patient care services to a pharmacist (see Chapter 5 for more details).[42] Compared to other healthcare providers, community pharmacists are more accessible to patients. They also have the knowledge to educate patients on the pharmacological aspects of MOUD and are receptive to providing these medications.[44-46] Notably, community pharmacists have played a role in other opioid use and safety initiatives, and patients are receptive to the services provided by pharmacists.[42,47-48]

There is a clear need to improve access to MOUD for formerly incarcerated individuals as they transition out of correctional facilities and back into the community, especially in Wisconsin. Community pharmacists are a promising resource for increasing access, specifically for injectable naltrexone. However, not only has work to improve MOUD access during reentry been limited in general, but research focused on community pharmacist-provided injectable naltrexone remains almost nonexistent. Additionally, the preliminary interviews with Wisconsin correctional staff mentioned above showed that community pharmacists are not often utilized as a treatment resource during the reentry process. Accordingly, this project is focused on exploring community pharmacists as a resource for providing naltrexone injections to formerly

incarcerated individuals during reentry. As a first step, it is necessary to explore the barriers and facilitators to community pharmacist-provided injections for this patient population (Aims 1 and 2). While previous work has examined barriers and facilitators to OUD treatment, it has been limited to 1) forms of MOUD other than injectable naltrexone, 2) providers of MOUD other than community pharmacists, 3) non-justice impacted patients, or 4) time periods other than community reentry (please see Chapter 2). Additionally, although they have the capabilities of providing naltrexone injections, as described above, pharmacists may also face barriers on their end to performing these services. For example, pervious work focused on injectable naltrexone showed that community pharmacists may face problems related to fixed costs, reimbursement, time, and lack of training.[42] This project will also leverage the findings from Aims 1 and 2 to inform an intervention that improves access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals upon reentry (Aim 3).

Chapter 2: Literature Review

Methods

A narrative review was conducted to compile and synthesize available literature describing MOUD access for formerly incarcerated individuals with OUD during community reentry from correctional facilities. The researchers anticipated limited results and decided that a narrative view was the most appropriate method for summarizing this work and highlighting the limitations and gaps. Compared to other reviews, narrative reviews are used to summarize the most current and salient findings. The lead researcher met with a librarian at Ebling Library to identify keywords using a self-adapted version of the Population, Intervention, Comparison, and Outcome (PICO) model, as shown in Table 2.1.[49] These keywords were used to search relevant electronic databases, including PubMed, Scopus, and Web of Science, for published literature. The search string is further detailed in Appendix 1.

Table 2.1. Keywords used in literature review

Population	Condition	Intervention	Environment
• Prisoner • Prison • Jail • Inmate • Criminal • Criminal justice system • Corrections • Correctional • Correctional facility • Justice • Justice-impacted • Justice-involved • Incarcerated • Incarceration • Formerly-incarcerated • Previously-incarcerated	• Opioid use disorder • OUD • Opioid addiction • Opioid abuse • Opioid dependence	• Medications for opioid use disorder • Medications for OUD • MOUD • OUD treatment • Medication-assisted treatment • MAT • Methadone • Buprenorphine • Naltrexone	• Transition • Community transition • Reentry • Re-entry • Community reentry • Community re-entry • Decarceration • Reintegration • Community reintegration • Post-incarceration • Post-release

All records were compiled, and duplicates were removed. Other literature reviews were not included, but citations were searched for additional references. An initial screening of titles and/or abstracts was done to identify potentially relevant literature. Full-text articles were then read and selected based on the inclusion and exclusion criteria. Inclusion criteria included peer-reviewed research articles and federally-published reports from the United States, written in English, indexed from inception to March 2024, and focused on 1) barriers and facilitators to MOUD access for formerly incarcerated individuals or 2) interventions or programs to increase access to MOUD for formerly incarcerated individuals during community reentry.

For this review, reentry could include direct release or reentry through the parole system or other mechanisms of community supervision. We also included records regardless of whether participants were continuing or initiating MOUD within the community. Exclusion criteria included literature from outside the United States, written in languages other than English, or without full-text availability. Literature was also excluded if it only focused on evaluating perceptions of MOUD, assessing MOUD continuation or initiation within correctional facilities, comparing outcomes between MOUD treatment options, or creating a "call to action." Finally, study protocols were excluded if the completed research was available. The search and selection process is visualized in Figure 2.1. The final literature was synthesized and presented in narrative format.

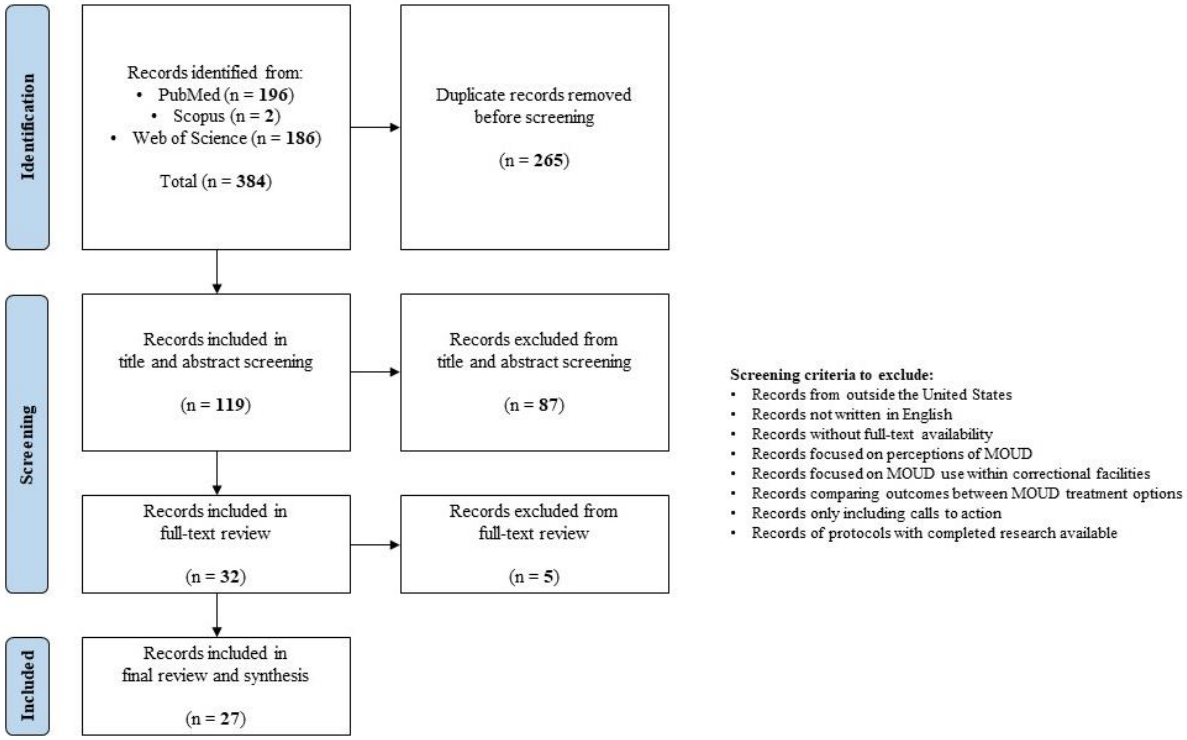

Figure 2.1. Literature review search and selection strategy

Barriers and Facilitators to MOUD for Formerly Incarcerated Individuals

In total, 27 records were included, ten of which focused on barriers and facilitators to MOUD access for formerly incarcerated individuals. These ten records are described in more detail below and separated based on study participant type. They are further summarized in Table 2.2.

Perspectives of formerly incarcerated individuals

Overall, six of the ten records highlighted barriers and facilitators from the perspectives of formerly incarcerated individuals. Both Kaplowitz et al. and Martin et al. focused on individuals from the Rhode Island Department of Corrections, which provides all three classes of MOUD. The first study conducted 40 semi-structured interviews with individuals who were enrolled in the MOUD program, specifically examining barriers to continued engagement in all

treatment options after release from incarceration. Both structural and social factors, including transportation, housing, insurance, treatment program structure, and social support networks, were perceived to influence retention in MOUD post-release.[21] In the second study, the researchers completed 227 phone surveys with individuals from the program. Those who did not connect with treatment post-release reported transportation issues and willingness to continue MOUD as the main reasons. Results also identified medication side effects, time between release and treatment, and family and friends' opinions as factors that influence treatment post-incarceration.[28]

Two additional studies assessed the same research question in different populations. First, one study examined facilitating factors and barriers to MOUD among justice-involved individuals from one rural Appalachian community. Qualitative interviews were conducted with ten individuals, and provider availability, readiness to change, and opinions on physical dependence and treatment options were identified as major influencing factors. Access was further hindered by transportation, time burdens, and costs.[27] Second, Velasquez et al. assessed barriers and facilitators of jail-to-community reentry among individuals with opioid use disorder who were recently released from New York City jails. Among the 33 adults who completed an interview, several factors were identified, including: drug use environments, actively using peers, medication dosing requirements, stigma, housing stability, economic security, and motivation and willpower.[23]

Other studies examined barriers and facilitators to treatment for individuals using specific forms of MOUD. Hoffman et al. conducted qualitative interviews with individuals with a history of incarceration who were receiving methadone at a non-profit opioid treatment program affiliated with the Yale School of Medicine. Major barriers to treatment included social

challenges and lack of stable housing, employment, and money.[25] Finally, Fox et al. investigated barriers to and facilitators of buprenorphine maintenance treatment (BMT) following release from incarceration. Interviews included former inmates from addiction treatment settings, and emergent themes included reliance on willpower, fear of dependency and/or withdrawal, and acceptability of BMT.[24]

Perspectives of professional staff

The other four studies focused on professional perspectives, with the majority including clinical providers. First, Stopka et al. interviewed 36 medical, supervisory, and administrative staff from 18 community-based MOUD treatment programs in Massachusetts located across seven different counties. The goal was to assess treatment continuity among individuals released from jail. Results highlighted the importance of interagency communication and pre-release planning as crucial for treatment success. Substantial barriers included negative opinions on agonist treatment, unexpected releases, and lack of shelter, food security, employment, transportation, and insurance.[30] Second, a qualitative study examined the barriers to treatment among individuals with OUD in Appalachian Kentucky following release from prison. Interviews were conducted with social service clinicians (SSCs) employed by the Department of Corrections. Treatment barriers were identified across the social ecological spectrum and included: high-risk drug use, easy access to opioids, lack of motivation, homogenous social networks, limited treatment knowledge, high caseloads, limited resources and support, lack of transportation, and costs.[29] Third, King et al. explored the perspectives of opioid treatment providers (OTPs) on access to MOUD for pregnant individuals specifically. OTPs described their belief that pregnant people face particular barriers to OUD care post incarceration, including lack of access to childcare, preparing for the baby, and feeling unwell. Results also

showed that pregnant individuals face barriers that nonpregnant individuals experience, including transportation, housing, and financing.[32ri]

The remaining study included professionals working in criminal justice settings. The researchers examined perspectives around post-release care among jail staff engaged in MOUD programs. They conducted both focus groups and semi-structured interviews with 61 staff members. Results showed that factors influencing continuity of treatment included timing of treatment initiation, staff knowledge about MOUD, internal and external communication and collaboration, use of navigators, and timely reinstatement of health insurance.[31]

Table 2.2. Summary of records focused on barriers and facilitators to MOUD for formerly incarcerated individuals

	Stakeholders interviewed	MOUD and setting of interest	Analytic approach	Key factors influencing treatment
Perspectives of formerly incarcerated individuals				
Kaplowitz et al. (2023)[21]	40 individuals from the Rhode Island Department of Corrections	Any MOUD from any treatment setting	Inductive thematic analysis	Transportation, housing, insurance, program structure, support networks
Martin et al. (2019)[28]	214 individuals from the Rhode Island Department of Corrections	Any MOUD from any treatment setting	Descriptive statistics	Transportation, willingness, side effects, timing, family/friends' opinions
Staton et al. (2023)[27]	10 justice-involved individuals from a rural Appalachian community	Any MOUD from any treatment setting	Inductive thematic analysis	Provider availability, readiness to change, opinions on physical dependence and treatment options
Velasquez et al. (2019)[23]	33 adults with OUD released from New York City jails	Any MOUD from any treatment setting	Grounded theory approach adapted to the Social Cognitive Theory framework	Environment, peers, medication dosing, stigma, housing, economic security, motivation, willpower
Hoffman et al. (2023)[25]	42 individuals from a non-profit opioid	Outpatient methadone	Deductive and inductive thematic	Social environment, housing, employment,

	treatment program	treatment	analysis	money
Fox et al. (2015)[24]	21 former inmates with OUD from addiction treatment settings	Buprenorphine from any treatment setting	Grounded theory approach	Willpower, fear of dependency or withdrawal, acceptability of treatment
Perspectives of professional staff				
Stopka et al. (2022)[30]	36 staff from 18 MOUD treatment programs in Massachusetts	Any MOUD from community treatment programs	Deductive analysis via the Exploration, Preparation, Implementation, and Sustainment (EPIS) framework, inductive thematic analysis	Interagency communication and planning, opinions on treatment, shelter, food security, employment, transportation, insurance
Bunting et al. (2018)[29]	15 social services clinicians employed by the DOC in Appalachian Kentucky	Any MOUD from any treatment setting	Deductive analysis via the Social Ecological Model, inductive thematic analysis	Drug use, access to opioids, motivation, social networks, knowledge, caseloads, social resources and support, transportation, cost
King et al. (2021)[32]	16 providers and administrators from 16 OTPs in various states	Any MOUD from community treatment settings	Direct content analysis using the Consolidated Framework for Implementation Research	Specific to pregnancy: lack of childcare, preparing for the baby, feeling unwell General: transportation, housing, financing
Matsumoto et al. (2022)[31]	61 staff within seven jails in Massachusetts	Any MOUD from any treatment setting	Deductive and inductive analysis via the EPIS framework	Timing of treatment, staff knowledge, internal and external communication and collaboration, navigators, insurance

Interventions and Programs to Improve MOUD Access for Formerly Incarcerated Individuals

The remaining 17 records focused on interventions or programs to improve access to MOUD for formerly incarcerated individuals during community reentry. The records are described in more detail below and separated based on intervention evaluations, program descriptions and evaluations, and research in progress. Additional study characteristics are outlined in Table 2.3.

Intervention evaluations

Five studies focused on intervention evaluations. The results yielded one randomized controlled trial, which assessed the effectiveness of injectable naltrexone in conjunction with patient navigation. Patient navigation assisted participants in accessing care and overcoming barriers following release. This treatment was compared to naltrexone alone and enhanced treatment-as-usual with drug education. Primary outcomes included opioid use and meeting the criteria for OUD six months post-release, and the researchers found no significant differences by study condition for these outcomes.[50]

Another observational retrospective cohort study was conducted to evaluate an OUD treatment decision making (TDM) intervention on MOUD initiation for formerly incarcerated individuals. The TDM intervention 1) included education on OUD and MOUD, 2) explored individual perceptions and history of MOUD use, 3) provided a motivational-interviewing-informed approach to evaluating the pros and cons of each mediation, and 4) helped identify specific next steps towards initiating MOUD. Cox proportional hazard modeling indicated that those receiving TDM were significantly more likely to initiate MOUD during the first month after release, but not in subsequent months.[51] In another study, the research team examined the feasibility of this type of intervention. Care navigation logs documented intervention engagement and service utilization, and follow-up interviews were conducted to assess satisfaction. Overall, the intervention had broad acceptability among participants and was feasible to implement. However, it didn't demonstrate its intended effect to facilitate MOUD immediately post-release among the small sample size.[52]

One article reported on the acceptability and feasibility of an intervention that utilizes clinician-delivered in-person meetings and text messages. Clinician-delivered sessions occurred

in the two weeks prior to release, followed by 3 months of text messages after discharge. These components were designed to engage patients in decisional balance exercises, provide strategies to manage stress, drug cues, and psychological discomfort, promote ongoing MOUD engagement, and emphasize adaptive strategies for distress tolerance. Semi-structured interviews indicated positive reactions toward the intervention, and participants believed the intervention to be generally viable.[53]

Finally, Hanna et al. conducted a formative qualitative evaluation to assess the fit of applying the Consolidated Framework for Implementation Research (CFIR) to a corrections and community-based opioid use treatment initiative. The initiative utilizes the evidence-based model, MISSION-CJ (Maintaining Independence and Sobriety through Systems Integration, Outreach, and Networking – Criminal Justice). The model includes six components: 1) Critical Time Intervention case management, 2) Dual Recovery Therapy, 3) peer support, 4) vocational and educational support, 5) trauma-informed care, and 6) comprehensive risk-need assessment and treatment planning. The evaluation found CFIR to be a useful framework for understanding barriers and facilitators to implementation uptake of cross-system re-entry initiatives for individuals with OUD. Researchers found CFIR to be particularly valuable in reinforcing the use of implementation research as a way of continuous process improvement.[54]

Program descriptions and evaluations

Three records included descriptions of six existing programs that help link individuals to MOUD treatment. The first described the development of Project Connection at Re-Entry (PCARE), which provides low-threshold buprenorphine treatment through a mobile van located outside the Baltimore City Jail. Treatment is provided by a primary care physician who prescribes buprenorphine, a nurse, and a peer recovery coach. Initial outcomes showed that in

participants beginning treatment, 67.9% returned for a second visit or more, 31.6% were still involved in treatment after 30 days, and 20.5% were transferred to continued treatment at a partnering site.[55]

The second described a program funded through the Justice Community Opioid Innovation Network (JCOIN), an initiative to connect investigators with justice and behavioral partners to improve care for individuals with OUD in justice settings. The program connects women in jail to peer navigators via videoconference. Navigators provide an initial reentry recovery assessment and 12 or more weeks of support sessions after reentry. Initial recovery assessments focus on discussions of needs/barriers, resources/supports, and recovery goals. The researchers also reviewed notes from initial sessions and conducted in-depth interviews with peers to document their perspectives on participants' community transition. They also discussed challenges and successes from the first year of the intervention. Notes showed that women anticipated challenges to reentry, and more than half chose OUD treatment as their primary goal. Specifically, 17.5% of participants mentioned a preference for MOUD post-release. In initial interviews, peers described transitions as unpredictable and discussed barriers related to stigma and establishing relationships via telehealth. However, they also discussed that peer navigation can offer critical linkages to services for women during release from jail.[56]

Lastly, a resource guide from SAMHSA described four different re-entry programs in three separate states. In Rhode Island, 12 MOUD "Centers of Excellence" were established. These centers were repurposed from an existing network of CODAC Behavioral Healthcare outpatient facilities. The facilities were scattered throughout the state and enabled formerly incarcerated individuals to continue MOUD regardless of their location post-release. In 2017, Rhode Island saw a 60.5% decrease in the overdose death rate among those recently

incarcerated. In Kentucky, the Department of Corrections (DOC) helps fund Recovery Kentucky, which includes 14 addiction treatment sites across the state. These sites provide housing and continued treatment, including MOUD, post-release. Overall, 57.2% of individuals completing Recover Kentucky had not been reincarcerated. Additionally, Massachusetts houses two major programs. Spectrum Health Services provides Vivitrol for individuals pre-release. On release, participants are directly referred to one of over 25 clinics maintained by Spectrum or provided through DOC partners. The program contributed to a 9.7% reduction in crime. In Middlesex specifically, the Sheriff's Office implemented the Medication Assisted Treatment and Direct Opioid Recovery (MATADOR) program, which provides post-release treatment navigation and support. Navigators help guide individuals through treatment and communicate with participating community MOUD providers. To date, only 4.57% of participants had a fatal overdose after participation.[35]

Research in progress

Finally, nine records included research in progress. Results yielded a study protocol that will assess the impact of long-acting naltrexone injections post-release via mobile medical treatment at the patient's place of residence, as mobile treatment has shown promising outcomes for the treatment of other chronic diseases. Participants will be randomized to receive: (1) one injection of long-acting naltrexone in prison, followed by six monthly injections post-release at a community treatment program; or (2) one injection of long-acting naltrexone in prison, followed by six monthly injections post-release at the patient's residence via mobile treatment. Primary outcomes will include treatment adherence, opioid use, criminal activity, re-arrest, reincarceration, and HIV risk-behaviors.[57] Additionally, Gordon et al. describes the planned assessment of Buprenorphine Bridge Treatment (BBT) compared to treatment as usual. Under

BBT, participants will begin buprenorphine using a MedicaSafe dispensing device, a tamper-resistant medication dispenser with an online platform that logs dispense and adherence data. Treatment will start immediately after intake at a community supervision office and continue until transition to a community program. Illicit opioid use and treatment adherence will be the primary outcomes of interest.[58] A third team will assess whether follow-up care in a Transitions Clinic Network (TCN) will improve post-release opioid treatment outcomes. The TCN provides enhanced care by including a community health worker with a history of incarceration on the primary care team. The community health worker will focus on attending to the social needs of patients, including housing and food security. Researchers will randomize 800 individuals to a TCN or standard primary care and assess engagement in OUD treatment within 30 days of release.[59]

Four of the protocols will evaluate professional or peer support. First, the Reducing Opioid Mortality in Illinois (ROMI) protocol describes a type I hybrid effectiveness-implementation randomized trial that will compare case management, peer recovery coaching, and overdose education and naloxone distribution (CM/PRC+OEND) to OEND alone. The intervention will involve linkage to treatment and support for continuity of care, skills building, and navigation of social service. The primary outcome will be engagement in MOUD.[60] A second protocol describes the Reducing Overdose After Release from Incarceration (ROAR) pilot intervention. Participants will receive nasal naloxone, training on naloxone use, and regular check-ins with certified recovery mentors to facilitate sustained engagement with treatment. Mentorship will begin in the month prior to release and continue for six months in the community. Researchers will evaluate opioid overdose as the primary outcome.[61] Third, another type 1 hybrid implementation-effectiveness study will determine whether a facilitated local

change team (LCT) intervention improves linkage to MOUD, and whether participant-level outcomes are enhanced by using peer support specialists (PSS). As part of the effectiveness study, participants will be randomized to receive PSS vs. treatment as usual. Participants in the experimental arm will meet with a PSS for 12 months, and PSSs can help establish linkages to treatment, provide education, share skills, and set goals. The outcome of interest includes engagement in MOUD.[62] Lastly, a research team will test an adapted version of the evidence-based Recovery Management Checkups (RMC), which provides MOUD linkage, support for retention, and re-linkage at quarterly checkups with a Linkage Manager. Individuals will either receive only Monitoring and Treatment Referral (MTR), quarterly RMC, or RMC-A, which adjusts the number and intensity of checkups based on an individual needs assessment at each checkup. Researchers will evaluate MOUD treatment initiation, engagement, retention, and relinkage.[63]

Additionally, a protocol from the University of Wisconsin-Madison and George Mason University outlines a trial for assessing two implementation strategies. This team will conduct a randomized controlled trial with 48 jails and community-based treatment provider sites that work with formerly incarcerated individuals with OUD. The trial will determine the optimal combination and dosages of two different coaching strategies: (1) The Network for the Improvement of Addiction Treatment (NIATx) model for process improvement, which provides technical assistance on MOUD implementation and organizational change to help organizations provide MOUD for justice-impacted patients; and (2) The Extension for Community Healthcare Outcomes (ECHO) model, which focuses on connecting clinical providers with expert MOUD prescribers to promote high-quality practices. The trial will include four study arms (high and

low-dose NIATx coaching with and without ECHO), and researchers will conduct exploratory analyses of baseline MOUD practices and changes over time.[64]

Finally, Staton et al described the adaptation of a Department of Corrections protocol for injectable naltrexone administration using the Assessment, Decision, Administration, Production, Topical experts, Integration, Training, and Testing (ADAPT-ITT) framework. The goal of the adaptation is to prepare for a pilot RCT. The pilot RCT will examine the continuation of injectable naltrexone from induction in jail to ongoing administration via one of two test sites following release. The goal is to determine whether treatment in real-world criminal justice settings, like probation and parole offices (experimental arm), reduces barriers to ongoing treatment compared to clinics.[65]

Table 2.3. Summary of records focused on interventions or programs to improve access to MOUD for formerly incarcerated individuals during community reentry

	Record type	Population and setting	Program or intervention components	Lead stakeholders involved
Intervention evaluations				
Farabee et al. (2020)[50]	Randomized controlled trial	135 jail inmates in the Bernalillo County Metropolitan Detention Center	Naltrexone injections with patient navigation	Physicians, patient navigators
Banta-Green et al. (2020)[51]	Observational retrospective cohort study	3,742 individuals from four eligible jails in Washington state	OUD treatment decision making (TDM)	DOC re-entry staff
Banta-Green et al. (2019)[52]	Feasibility study of pilot intervention	15 male participants from Washington State prisons and Department of Corrections community supervision	Education on OUD and available treatments, decision-making support, care navigation	Care navigators
Langdon et al. (2022)[53]	Feasibility and acceptability study	8 individuals from an outpatient primary care clinic in Rhode Island	Decisional balance exercises, distress tolerance coping skills, text messages	Counselors

Hanna et al. (2019)[54]	Formative qualitative implementation evaluation	Two state correctional facilities in Michigan	Case management, dual recovery therapy, peer support, vocational and educational supports, trauma-informed care, treatment planning	Case managers, peer support specialists
Program descriptions and evaluations				
Krawczyk et al. (2019)[55]	Program description and initial outcomes	220 individuals at the Baltimore City Jail	Mobile low-threshold buprenorphine, transition to treatment program or primary care	Physicians, nurses, driver/site manager, peer recovery specialists
Tillson et al. (2022)[56]	Program description and initial outcomes	Women from six jail sites in Kentucky	Recovery assessments, recovery support sessions	Peer navigators
Substance Abuse and Mental Health Services Administration (2019)[35]	Program description	Individuals in the Rhode Island Department of Corrections	Medicaid enrollment assistance, treatment via Centers of Excellence, counseling, education, peer recovery support	Medical directors, project coordinators, program directors, clinicians, discharge planners, peer support specialists
Substance Abuse and Mental Health Services Administration (2019)[35]	Program description	Individuals in the Kentucky Department of Corrections	Naltrexone injections, cognitive behavioral therapy, relapse prevention support groups	Clinicians, case managers
Substance Abuse and Mental Health Services Administration (2019)[35]	Program description	Individuals in the Massachusetts state prisons	Personal recovery plans, oral and injectable naltrexone, care coordination and management	Clinicians, recovery support navigators
Substance Abuse and Mental Health Services Administration (2019)[35]	Program description	Individuals in custody at the Middlesex Sheriff's Office (MSO) in Middlesex County, Massachusetts	Medicaid enrollment assistance, injectable naltrexone, care management	Clinicians, navigators
Research in progress				

Gordon et al. (2017)[57]	Study protocol	240 male and female prisoners from four prisons in Baltimore City and Baltimore County	Mobile naltrexone treatment	Nurses
Gordon et al. (2019)[58]	Study protocol	Male or female individuals on parole or probation in Baltimore	Buprenorphine via MedicaSafe dispensing devices	Physicians, nurses, addictions counselors
Howell et al. (2021)[59]	Study protocol	800 individuals from seven jails in Connecticut, New York, Puerto Rico, North Carolina, and Minneapolis	Enhanced primary care via Transitions Clinic Network	Clinicians, community health workers
Pho et al. (2021)[60]	Study protocol	1,000 individuals from rural and urban jails and prisons in Illinois	Connection to community services and OUD treatment, establishment of caseworker relationships, identification of goals, self-advocacy skill building, overdose education and naloxone distribution	Case managers, peer recovery coaches
Waddell et al. (2020)[61]	Study protocol	100 women from the Oregon Department of Corrections	Naltrexone injections, naloxone training and distribution, recovery mentorship	Certified recovery mentors, mental health counselors, nurses
Martin et al. (2021)[62]	Study protocol	680 individuals from seven community probation sites in Rhode Island, North Carolina, and Pennsylvania	Local change teams, peer support specialists	Parole officers, clinicians, case managers, administrative staff, peer support specialists
Scott et al. (2021)[63]	Study protocol	750 male and female individuals from 5 county jails in Illinois	Recovery management checkups	Linkage managers
Molfenter et al. (2021)[64]	Study protocol	48 jails and community-based treatment sites in Hawaii, Maine, Virginia, and Wisconsin	NIATx and ECHO coaching models	Criminal justice staff, health provider representatives, clinicians, counselors

Staton et al. (2021)[65]	Protocol adaptation and study description	Individuals with OUD released from jail in Appalachia	Naltrexone injections via probation and parole offices	Clinicians, counselors, case managers

Summary

Overall, the literature highlights several barriers to MOUD access for formerly incarcerated individuals during community reentry, and there is a clear need to address these barriers and improve access. Yet, this review also demonstrates that research to address this problem remains limited, and most work is in progress. Additionally, most intervention evaluations focus on acceptability and feasibility, rather than effectiveness, or are limited to certain geographic areas and sub-populations, such as male or female-only inmates.

In looking at stakeholder involvement, a potential resource that has not been included is community pharmacists, who can provide naltrexone injections. The success of mobile treatment as an intervention demonstrates that location of MOUD can facilitate access. Community pharmacists are not only more accessible than other healthcare providers, but 96.5% of the U.S. population lives within 10 miles of a community pharmacy.[66] In Wisconsin specifically, nearly 90% of residents live within a 10-minute drive of a community pharmacy.[44] Yet, the use of community pharmacist-provided injectable naltrexone for formerly incarcerated individuals has not been researched, including barriers and facilitators to access. Future work should assess these barriers and facilitators. It should also explore the barriers and facilitators faced by community pharmacists in providing injectable naltrexone for formerly incarcerated individuals.

As noted, most records related to programs and interventions include research in progress. While this may limit our ability to draw conclusions about how to improve MOUD access for formerly incarcerated individuals, it also shows that researchers are recognizing this problem. Continuing these efforts and addressing the gaps and limitations noted above can help

improve several public health outcomes and ensure that this patient population is not tossed aside, but given the opportunity to successfully reintegrate into society.

Chapter 3: The Socioecological Model

The Socioecological Model is a multilevel model that conceptualizes factors impacting health behaviors and outcomes, as well as the interactions between these factors. It also supports the idea that behaviors both affect and are affected by various contexts. The Socioecological Model was first introduced as a conceptual model by Urie Bronfenbrenner in the 1970s as a tool for understanding human development. Originally, the model was illustrated with the individual in the center surrounded by various systems, including the microsystem, mesosystem, exosystem, macrosystem, and chronosystem.[67] Since it was formalized as a theory in the 1980s, several organizations, including the Centers for Disease Control and Prevention, have adapted the Socioecological Model for various health-focused endeavors. Many of these adaptations, as shown in Figure 3.1, illustrate that health behaviors and outcomes are influenced by factors at the following levels: 1) individual, 2) interpersonal, 3) organizational, 4) community, and 5) public policy.[68-70]

Figure 3.1. The Socioecological Model

The first level is the individual level, which encompasses biological and personal history characteristics that impact health. Examples include age, educational level, and income, as well as personal attitudes, behaviors, and developmental history. The second level includes both formal and informal relationships, social networks, or support systems. Examples may include family, social circle-peers, partners, or work groups that influence health behaviors and experiences. The third level, or the organizational level, focuses on the characteristics and formal or informal rules for social or professional institutions. For example, practices or regulations that impact the day-to-day operations of a healthcare organization would fall within this level. The fourth level explores the relationships among organizations, institutional, and informational networks within defined boundaries, such as a neighborhood. It also summarizes the characteristics, social norms, and resources associated with these relationships. The final and fifth level, or the public policy level, refers to local, state, national, and global laws and policies. This can include policies that allocate resources, restrict behaviors, and provide behavioral incentives. The public policy level also examines the social climate and cultural norms that impact health and/or help to maintain inequalities between groups in society.[68-69]

The Socioecological Model has been used extensively in public and population health efforts, including violence prevention, cancer prevention, palliative care, mental health and well-being, housing stability, and vaccination access.[69,71-76] Specifically, the Model has been widely used to summarize barriers and facilitators to healthcare access, especially for vulnerable and marginalized communities.[77-78] Importantly, the Socioecological Model has also been applied to studies focused on justice-impacted individuals and patients with substance use disorders. For example, one study utilized the Model to examine hepatitis C virus (HCV) transmission risk and violence among individuals in a prison setting. Another study aimed to understand how barriers

co-occur and interact to interfere with outcomes in methadone treatment for low-income, underserved patients with opioid use disorder.[79] Finally, previous research has applied the Socioecological Model specifically to individuals with both a history of incarceration and substance use disorders. A study by Bunting et al. utilized the Model to examine barriers to community-based substance use treatment among individuals with OUD in Appalachian Kentucky following release from prison.[29]

For the purposes of this project, the Socioecological Model will be used to guide data analysis for Aim 1. During this Aim, five different stakeholder groups (MOUD prescribers, community pharmacists, correctional staff, staff of community organizations/non-profits, and individual patients or family members/caregivers) will participate in semi-structured interviews to discuss the barriers and facilitators to community pharmacist-provide injectable naltrexone for formerly incarcerated individuals. Both barriers and facilitators identified by the participants will be coded to the levels of the Socioecological Model. As mentioned, there are various adaptations of the Socioecological Model, and the domains between these adaptations can differ slightly. The version shown in Figure 3.1 will be used, specifically because it distinguishes between the organizational and community level. This will allow the researcher to differentiate barriers and facilitators that exist at the organizational level of the community pharmacy and those that exist within the community between pharmacists and other professional stakeholders, such as primary care providers and non-profit organizations. Overall, this process will not only help synthesize and conceptualize the factors impacting community pharmacist-provided injectable naltrexone, but can help direct where future interventions should be targeted.

Additionally, we anticipate that the barriers and facilitators identified during the individual interviews will primarily fall within the lower levels of the Model. As a result, Aim 2

will be used to identify Wisconsin statutes and regulations with potential implications for community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. Aim 2 will also include an environmental scan of injectable naltrexone services in Wisconsin. This will provide additional context for the barriers and facilitators that exist at the community and public policy levels. All findings from Aims 1 and 2 will be used to inform and prompt focus group discussions during Aim 3. The focus group discussions will be used to inform the conceptualization of an intervention to improve access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. This process is visually depicted in Figure 3.2.

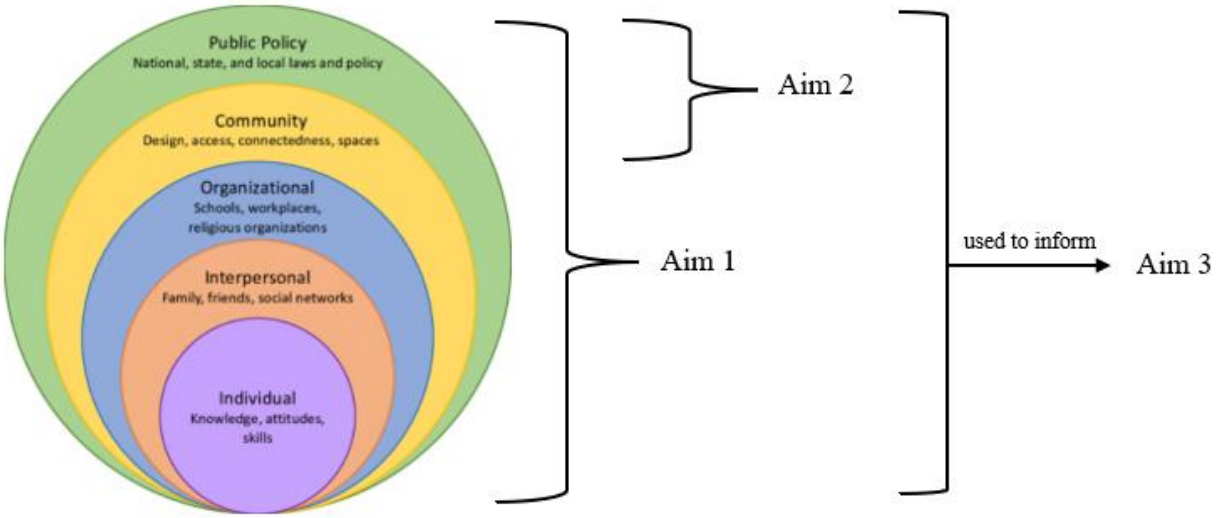

Figure 3.2. Application of Socioecological Model to the project Aims

Chapter 4: Barriers and Facilitators to Community Pharmacist-Provided Injectable Naltrexone for Formerly Incarcerated Individuals During Community Reentry in Wisconsin

Abstract

Medications for opioid use disorder (MOUD), which includes long-acting injectable naltrexone, are a key component in the treatment of opioid use disorder (OUD). These medications are especially important for individuals transitioning out of correctional facilities and back into their communities, as individuals receiving MOUD are 85% less likely to die due to drug overdose in the first month after release and have a 32% lower risk of rearrest. Unfortunately, few formerly incarcerated individuals have access to MOUD upon community reentry, incurring a 40-fold greater likelihood of opioid overdose following release compared to the general population. While 84% of Wisconsin jails offering MOUD offer naltrexone, less than half of jails provide linkage to community treatment for reentering individuals. In Wisconsin, community pharmacists have the authority to provide naltrexone injections. However, they have not been explored as a resource for improving access to this medication for formerly incarcerated individuals (see Chapter 2). As a first step, the goal of this study was to understand the barriers and facilitators impacting access to community pharmacist-provided injectable naltrexone for this patient population during the community reentry period. The researcher conducted semi-structured interviews with 18 individuals representing five different stakeholder groups. Deductive and inductive content analysis were used to identify categories of barriers and facilitators across the five levels of the Socioecological Model. Overall, participants discussed factors at every level, and many barriers and facilitators confirmed findings from existing literature focused on MOUD access for formerly incarcerated individuals. Participants also identified factors more specific to community pharmacies, including 1) lack of interagency collaboration between pharmacists, prescribers, and correctional facilities and 2) lack of

awareness of community pharmacist-provided naltrexone injections services. Next steps should include an exploration of additional state-level policies that may impact community pharmacist-provided services for formerly incarcerated individuals. Additionally, future research should explore interventions to address the barriers identified in this study and improve connections between community pharmacists and formerly incarcerated individuals. This work can help ensure that these individuals are given the chance to successfully reintegrate into society.

Introduction

The opioid epidemic is a major public health issue in the United States, with more than three million citizens previously or currently suffering from opioid use disorder (OUD), a problematic pattern of opioid use leading to health problems or social distress.[1-3] Specifically, Wisconsin has been impacted by this problem, with opioid overdose deaths increasing 900% from 1999 to 2019. In 2022 alone, there were 1,464 opioid-related deaths in the state.[5-6]

OUD is highly prevalent among individuals involved in the criminal justice system. In 2020, the Wisconsin Department of Corrections (DOC) reported 325 deaths among those admitted to probation and 276 among those released from prison.[7] Medications for opioid use disorder (MOUD), which include methadone, buprenorphine, and naltrexone, are a key component in the treatment of OUD, and are especially important for individuals transitioning out of correctional facilities and back into their communities.[8] Formerly incarcerated individuals receiving MOUD are 85% less likely to die due to drug overdose in the first month after release and have a 32% lower risk of rearrest.[16]

However, few formerly incarcerated individuals are able to access sustainable MOUD treatment upon community reentry, missing a critical tool for rehabilitation and incurring a 40-fold greater likelihood of opioid overdose following release compared to the general population.[17] Previous work has shown that in individuals who are released with doses of

MOUD, less than half continue use in the community.[18-20] In Wisconsin, only 47.7% of jails provided those being released with a community link to MOUD, and cutting off these medications during community reentry is especially dangerous.[10,15] Additionally, prior to the start of this project, preliminary interviews between the researcher and Wisconsin correctional staff revealed that the reentry process can be highly fragmented, leaving individuals to coordinate health care on their own.

Overall, there is a clear need to improve access to medications for opioid use disorder (MOUD) for formerly incarcerated individuals during community reentry. The volume of research in progress shows that more professionals are recognizing this need. However, the work being done to address this problem remains limited (see Chapter 2). Most research has been focused on acceptability, feasibility, or implementation outcomes or limited to specific sub-populations (e.g., formerly incarcerated women or geographic areas).

While current research efforts are limited, there are certain components of existing interventions and programs that show promise. For example, the success of mobile treatment demonstrates that an accessible location for MOUD treatment can facilitate access. Another unexplored resource that could provide an accessible location is community pharmacies.[55] Community pharmacists are not only considered more accessible than other healthcare providers, but 96.5% of the U.S. population lives within 10 miles of a community pharmacy.[44,66] Community pharmacists are also knowledgeable on the pharmacological aspects of MOUD and are receptive to providing these medications.[47-48] In addition, patients are receptive of medical services provided by pharmacists.[42]

Wisconsin community pharmacists have had the authority to administer long-acting injectable naltrexone treatments since 2019.[42] For formerly incarcerated individuals, injectable

naltrexone is associated with improved treatment retention, reduced healthcare utilization, reduced rates of reincarceration, reduced opioid relapse, and improved medication adherence. Injectable naltrexone is long-lasting and has a decreased risk of abuse potential, making it widely accepted and used among justice-impacted individuals.[41]

Long-term, improving connections between formerly incarcerated individuals and community pharmacists can help increase access to MOUD during the community reentry period. As a first step, the goal of this study is to understand the barriers and facilitators impacting access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. While previous work has examined barriers and facilitators to MOUD for formerly incarcerated individuals, as well as barriers and facilitators faced by community pharmacists in providing these services, community pharmacist-provided injectable naltrexone has not been explored for this population in particular (see Chapter 2).[42] Additionally, the preliminary interviews between the researcher and correctional staff in Wisconsin revealed that community pharmacists are not often utilized as a resource for treating these individuals. We will identify barriers and facilitators through semi-structured interviews with various stakeholder groups, including formerly incarcerated individuals with OUD and community pharmacists. These groups will allow us to collect different perspectives and ensure comprehensiveness, including identifying factors that impact the availability, access, and use of these services.

Methods

Participants and sampling

Participants were recruited for individual semi-structured interviews between September 2023 and January 2024. Study participants were recruited if they were identified as potential stakeholders in transitions of care for formerly incarcerated individuals with opioid use disorder during the community reentry process. Individuals fell within one of five different stakeholder

groups: 1) MOUD prescribers with experience providing care for formerly incarcerated patients, 2) community pharmacists with experience administering naltrexone injections for formerly incarcerated patients, 3) professionals working in a correctional setting with experience assisting formerly incarcerated individuals with reentry planning, 4) professionals working for a community organization or non-profit with experience assisting formerly incarcerated individuals with reentry planning, and 5) individual patients with a history of incarceration and using injectable naltrexone for OUD treatment OR a family member/caregiver of an individual with a history of incarceration and using injectable naltrexone for OUD treatment. Participants from all five stakeholder groups were 18 years of age or older, able to speak and understand English, and residing in Wisconsin. The goal of recruiting individuals from different stakeholder groups was to comprehensively understand the barriers and facilitators to accessing community pharmacist-provided injectable naltrexone from multiple perspectives. This approach was also used to help ensure that barriers and facilitators from every level of the Socioecological Model were discussed. Individual patients and family members/caregivers were combined into one category, as it was anticipated that both groups would offer similar perspectives. Additionally, patients and family members/caregivers were not recruited from the same family.

The researcher had established connections to several primary health clinics, pharmacies, and community organizations in Dane and Milwaukee Counties. A list of these organizations is included in Table 4.1. The researcher also attended several meetings with a few of the community organizations listed in Table 4.1. During these meetings, organization staff and/or formerly incarcerated individuals would attend to talk about their experiences, including experiences accessing healthcare. The researcher attended these meetings in order to engage with the community and learn more about the lived experiences of formerly incarcerated individuals

with substance use disorders. The researcher was also able to gain a better understanding of the problems faced by this population in accessing necessary care, which of these problems were a priority, and how to help address these problems. The researcher then leveraged these connections to identify and recruit participants. Initial recruitment was limited, especially concerning correctional staff and formerly incarcerated patients, so snowball sampling was utilized to identify additional participants who fit the inclusion criteria. In total, 18 participants were recruited, as shown in Table 4.2. This study was deemed exempt by the University of Wisconsin-Madison Institutional Review Board (applications 2023-1123 and 2023-1202).

Table 4.1 Organizations included in initial recruitment

Clinics	Community pharmacies	Community organizations
• UW Health • Collaborative Solutions in Psychiatry • Clean Slate	• Forward Pharmacy • Fitchburg Family Pharmacy • Hometown Pharmacy	• Justice Point • Just Dane • Safe Communities

Table 4.2. Aim 1 participants by stakeholder group

Role	No. of participants
MOUD prescribers	4
Community pharmacists	3
Correctional staff	4
Community organization or non-profit staff	4
Individual patients OR family members/caregivers	3

Procedures

All potential participants were informed of the study and invited to participate via email (Appendix 2). After indicating an interest in participating, they were emailed an informational sheet about the project (Appendix 3) and interviews were scheduled. The informational sheet was reviewed by the researcher on the call prior to the start of the interview, after which verbal consent to participate was obtained. The researcher emphasized that there was no obligation to

participate, and participation was voluntary and could be stopped at any time. All interviews were conducted via Zoom by the researcher. Interviews were audio recorded to help facilitate transcription and took 45 minutes to 1 hour. After the interview, participants were sent a five-minute demographic survey, which was returned to the researcher via email (Appendix 4). Participants were compensated with $60 gift cards after completion of the interview and survey.

The researcher (who has experience with qualitative interviews) conducted semi-structured interviews to identify the barriers and facilitators to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals during community reentry. Two interview guides were created by the researcher that aligned with 1) providers, pharmacists, or staff or 2) patients, family members, or caregivers (Appendices 4-5). As mentioned, the researcher knew that the use of community pharmacist-provided injectable naltrexone by formerly incarcerated individuals during reentry was limited, and not every participant would have direct experience with coordinating, providing, or receiving these services – specifically the correctional workers, community organization/non-profit staff, and patients, family members, or caregivers. As a result, the interview guides include questions for those with or without direct experience. Participants were first asked whether or not they had experience coordinating, providing, or receiving community provided naltrexone injections. If not, participants were asked to discuss anticipated barriers and facilitators based on their perceptions and/or experiences with community pharmacies. To help ensure credibility and confirm that the interview questions were clear and well-understood, the researcher conducted pilot interviews with peer and senior researchers prior to the start of the project.

Additionally, while the Socioecological Model was the guiding framework for this Aim, it was primarily utilized during data analysis (as described below). None of the interview

questions explicitly referenced this Model, as the goal was to create free-flowing conversations and identify factors that were most salient to the participants. Instead, probes were used to ensure that participants were considering barriers and facilitators at the different levels of the Model. All interviews took place from September 2023 to January 2024.

Due to the interview topic and participation by vulnerable individuals, the researcher took additional steps to ensure the comfortability and safety of all participants. First, the researcher confirmed that all interviews were being conducted in a completely confidential location. The researcher instructed all participants not to share their names or any identifying information during the interview. All transcripts were also reviewed to ensure that personal information was not mistakenly shared. Additionally, the researcher did not ask about any experiences related to drug abuse or addiction outside of access to treatment, and participants were told that they did not have to answer any questions or share any details they were uncomfortable discussing. Finally, all interview and survey data were stored according to the University of Wisconsin-Madison policy.

Data coding and analysis

The interviews were transcribed verbatim, de-identified, and verified for accuracy. All participants were assigned an ID number based on their stakeholder group. Transcripts were entered into NVivo, a qualitative data software package (released in March 2020).[80] The researcher performed deductive and inductive qualitative content analysis as outlined Elo & Kyngäs.[81] Both deductive and inductive approaches were used, as there is some previous knowledge on the barriers and facilitators that impact MOUD access for formerly incarcerated individuals, as well as factors impacting community pharmacists' abilities to implement injectable naltrexone services. However, knowledge related specifically to community

pharmacist-provided injectable naltrexone for formerly incarcerated individuals is highly limited. First, the researcher developed a categorization matrix based on the five domains of the Socioecological Model. This matrix is visualized in Table 4.3.

Table 4.3. Categorization matrix for content analysis

	Public Policy	Community	Organizational	Interpersonal	Individual
Barriers					
Facilitators					

The researcher then applied a deductive approach by analyzing the transcripts line-by-line and coding the data according to the matrix. Factors were categorized as a barrier or facilitator depending on whether the participant was talking about MOUD access being hindered or supported by that specific factor. To determine the level of the Socioecological Model, coders evaluated the context of each factor. For example, if a participant stated that they did not have personal access to a car or mode of transportation, this would have been coded to the individual level. However, if a participant stated that their neighborhood did not have reliable public transportation, this would have been coded to the community level. To support dependability and confirmability of the study, a second coder simultaneously analyzed 4 (22%) of the transcripts. Any discrepancies were resolved during discussions between both coders.

The lead researcher then applied an inductive approach to group the data within each domain and create higher order categories. Development of categories was supported and confirmed through discussions with senior research advisors. Any ambiguities or coding issues were also addressed during these discussions. The researcher created a comparative analysis table to highlight which stakeholder groups discussed each of the categories (for both barriers and facilitators). This was used to compare responses between groups and highlight convergence and divergence across the different stakeholder groups. Finally, in order to further demonstrate

credibility, representative quotes were selected for each of the categories. This process also helped show convergence or divergence among the stakeholder groups. Overall, the researcher utilized the four-dimension criteria of qualitative research to guide this process.[82]

Results

In total, 18 stakeholders participated in an interview. Participant demographics are outlined in Table 4.4. The Socioecological Model offered a framework for conceptualizing the factors impacting access to community pharmacist-provided naltrexone injections for formerly incarcerated individuals during the community reentry period.[67-69] For each level of the Socioecological Model, categories related to barriers and facilitators were distinguished, as displayed in Table 4.5. Table 4.6 and 4.7 shows the comparative analysis for which stakeholder groups discussed each barrier or facilitator category, respectively. Overall, although participants belonged to different stakeholder groups and were speaking from different vantage points, many of their responses overlapped. As a result, the categories below pertain to the whole sample, and variations or nuances between stakeholder groups are discussed where applicable. Table 4.8 and 4.9 highlights representative quotes for each of the categories, as well as the stakeholder group associated with the quote.

Table 4.4. Aim 1 participant demographics

	MOUD prescribers (n=4)	Community pharmacists (n=3)	Correctional staff (n=4)	Community organization staff (n=4)	Patients, family, caregivers (n=3)	Total (n=18)
Age	40.25	37.33	31.00	39.50	44.67	38.28
Gender						
Male	0 (0%)	3 (100%)	0 (0%)	1 (25%)	1 (33.33%)	5 (27.78%)
Female	4 (100%)	0 (0%)	4 (100%)	3 (75%)	2 (66.67%)	13 (72.22%)
Other	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ethnicity						
Hispanic/Latino	1 (25%)	0 (0%)	0 (0%)	1 (25%)	0 (0%)	2 (11.11%)
Not Hispanic or Latino	3 (75%)	3 (100%)	4 (100%)	3 (75%)	3 (100%)	16 (88.89%)
Race						
White	4 (100%)	3 (100%)	4 (100%)	4 (100%)	3 (100%)	18 (100%)
Black/African American	0 (0%)	0 (0%)	0 (0%)	1 (25%)	0 (0%)	1 (5.56%)
Asian	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Native Hawaiian/Pacific Islander	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
American Indian/Alaska Native	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Other	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Educational Level						
Less than high school	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
High school or equivalent	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (66.67%)	2 (11.11%)
Some college, no degree	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Associate or Bachelor	0 (0%)	1 (33.33%)	3 (75%)	2 (50%)	1 (33.33%)	7 (38.89%)
Master or above	4 (100%)	2 (66.67%)	1 (25%)	2 (50%)	0 (0%)	9 (50.00%)

Table 4.5. Categories of barriers and facilitators to community pharmacist-provided naltrexone injections for formerly incarcerated individuals during community reentry

Barriers	Facilitators
Public Policy Level	
• Cost-of drug • Cost of drug testing • Prescription requirement	• OUD classification
Community Level	
• Stigma • Lack of interagency collaboration • Lack of awareness • Lack of available prescribers/injectors	• Accessible pharmacy locations
Organizational Level	
• Administrative constraints • Lack of pharmacy advertising • Inability of pharmacists to provide additional OUD services	• Flexibility of appointments • Non-judgmental environment* • Pharmacy hours*
Interpersonal Level	
• Negative home/social environment	• Patient advocates/social support • Patient-provider relationship • Treatment reminders
Individual Level	
• Lack of insurance • Lack of reliable transportation • Lack of stable housing • Competing priorities • Medication side effects	• Having a plan and/or goals • Readiness to change

*Categories labeled with an asterisk were discussed as both barriers and facilitators. However, they were placed under the domain they were most commonly identified as.

Public Policy Level

Overall, participants did not heavily discuss barriers and facilitators at the public policy level. Most of the discussion at this level centered around cost. For example, several participants said that the cost of naltrexone injections creates a major barrier. Few added that the cost of the medication greatly exceeds the reimbursement to the community pharmacies, so there is no financial incentive for them to provide the services or invest time in the infrastructure needed to provide injections. Overall, the expense can deter community pharmacists from providing the injections, limiting access to formerly incarcerated patients. Additionally, an MOUD prescriber

added that the high cost of drug testing can create similar barriers, especially if community pharmacists take on the responsibility of testing patients prior to injections. Lastly, participants explained that patients face barriers because they are required to obtain a prescription from a provider for injectable naltrexone prior to visiting the community pharmacy. This can not only add additional steps for the patient, but for the community pharmacists.

An organizational/non-profit staff member mentioned a potential facilitator at the public policy level. They discussed the classification of OUD as a disability under the American Disabilities Act (ADA), stating that this could facilitate treatment access for formerly incarcerated individuals. However, they did not offer additional information on how this would directly apply to community pharmacist-provided naltrexone injections.

Community Level

While discussing barriers to community pharmacist-provided naltrexone injections, many participants focused on stigma, both within the community and among providers. Stigma towards justice-impacted patients and treatments for substance use disorder, including OUD, can limit available services, as well as patients' desires to seek treatment. Most of the participants noted that a major barrier is a lack of interagency collaboration between MOUD prescriber clinics, community pharmacies, and correctional institutions. Specifically, these organizations do not communicate about the healthcare status or needs of individuals transitioning back into the community, nor collaborate to facilitate treatment. Additionally, participants added that there is limited public and professional awareness that community pharmacists can and/or do provide naltrexone injections. Participants also noted that some patients are not only unaware that community pharmacists can provide these services, but that injectable naltrexone exists as a treatment option. Lack of awareness also prevents other non-pharmacist professionals from

referring patients to community pharmacists or educating patients on this option. Finally, several participants noted that there is simply a lack of available prescribers and injectors within the community, including community pharmacists who provide injections. This not only compounds the barrier of needing to obtain a prescription, but does not provide patients with the full opportunity to utilize community pharmacists for treatment.

In terms of facilitators, only one main factor was identified at this level. A majority of participants from all stakeholder groups shared that the accessible location of pharmacies within the community could support treatment for formerly incarcerated individuals. Participants noted that this could be especially true for those who don't have reliable transportation, as there is a good chance that there is a community pharmacy within a reasonable walking distance.

Organizational Level

At this level, discussions focused on the community pharmacy as the organization of interest. First, several participants shared that community pharmacists may face administrative constraints to providing naltrexone injections. Specifically, they mentioned that community pharmacists can be faced with additional paperwork, and they lack the ability to properly document individuals receiving injections. Next, a few participants shared that community pharmacies do not advertise injectable naltrexone services. This is due to deliberate choices by management or because the pharmacies lack the capacity to market their services to large audiences. The participants also added that many community pharmacists do not have the ability to provide pre-injection services, such as drug testing, or other services related to OUD treatment, including counseling or therapy. Overall, this can add additional steps for community pharmacists or deter formally incarcerated individuals from using community pharmacists for injections.

When discussing facilitators, many participants representing all stakeholder groups explained that community pharmacies can offer more flexibility with appointments. Patients either don't need to make an appointment or can quickly make an appointment and often be seen the same day. Additionally, compared to other treatment options, patients have an easier time switching between community pharmacies if necessary. Also, participants added that community pharmacies can provide a nonjudgmental environment for formerly incarcerated individuals, making them comfortable enough to receive treatment at these sites. However, this category showed discordance, as a couple participants expressed concerns that they may feel judged, or the pharmacy wouldn't provide enough privacy. One said, "The local pharmacy, these people could be, like, judgmental about a person's addiction…So, I think the judgement could be an issue or feeling different when you walk in, you know?" (Patient/family member/caregiver). The other stated, "You're in a public place that anyone can get into. You sit down and could have anyone you know sitting next to you…which may be a little weird now that I'm thinking about it," (Patient/family member/caregiver). Lastly, a few participants mentioned that community pharmacies have more convenient hours than other treatment options, facilitating access for formerly incarcerated individuals. However, as with the previous facilitators, there was some disagreement among participants. In talking about pharmacy hours, a participant said, "And their hours are usually awful too. They're not usually open. Community pharmacies at, like, [closed by] 6:30," (Organizational staff). Another added, "So, like, with community pharmacies specifically, like, I know some of the barriers are, like, their hours. Like, they're not usually open on Sundays, right? They have short Saturday hours. And so, for my patients that, like, again, are the off-shift workers, they can't get their medicines from a community pharmacy," (MOUD prescriber).

Interpersonal Level

One main category emerged regarding barriers at the interpersonal level. MOUD prescribers and patients/family members/caregivers explained that treatment access can be hindered if formerly incarcerated individuals are released into the same home or social environment they were in prior to incarceration. They added that this often exposes these individuals to "negative" influences or temptations, causing them to fall back into old patterns of drug use.

Compared to barriers, more facilitators were identified at this level. First, the majority of participants stated that access to naltrexone injections could be supported by patient advocates. For example, these advocates could include family members, friends, peer support specialists, or case managers. Participants added that these advocates could help keep patients accountable to their treatment schedule and goals. This facilitator was identified by participants from all stakeholder groups. Second, several participants, also representing every stakeholder group, added that if individuals have a positive, trusting, and respectful relationship with their providers, including community pharmacists, treatment is facilitated. Finally, outside of relationships, community pharmacist participants said that treatment for formerly incarcerated patients is facilitated if the pharmacy utilizes reminders via call or text.

Individual Level

At the individual level, the stakeholders identified several resources that create substantial barriers for formerly incarcerated individuals when not available. Nearly all participants discussed that a lack of reliable transportation – either private or public transportation – could inhibit access to naltrexone injections via community pharmacies. In addition to transportation, both a lack of insurance and lack of stable housing were identified

several participants. In particular, a lack of reliable transportation was discussed by participants from all stakeholder groups.

Outside of these resources, non-patient participants described that formerly incarcerated individuals may have other responsibilities that take priority over finding and receiving treatment. Examples include finding a job, meeting with probation or parole officers, or caring for other family members, including children. These responsibilities may not only be prioritized over treatment, but create barriers for patients from a time standpoint. A few participants added that the potential side effects experienced by individuals receiving naltrexone injections, including injection site pain, may deter them from wanting to use this option.

In terms of facilitators, participants explained that treatment access is facilitated when participants have a clear plan, treatment goals, or establish their "why." A "why" can include reasons spanning from parole requirements to being more present for family members. Finally, correctional staff and patients/family members/caregivers stated that treatment, including treatment via community pharmacies, is facilitated when individual patients are ready to make a change. This can directly relate to a patient's "why."

Table 4.6. Comparative analysis of barrier categories

	MOUD prescribers (n=4)	Community pharmacists (n=3)	Correctional staff (n=4)	Organization or non-profit staff (n=4)	Patient, family member, or caregiver (n=3)	All stakeholders (n=18)
Cost of drug	1 (25%)	3 (75%)		1 (25%)	1 (33%)	6 (33%)
Cost of drug testing	1 (25%)					1 (6%)
Prescription requirement	1 (25%)	1 (33%)		2 (50%)		4 (22%)
Stigma	1 (25%)		2 (50%)	2 (50%)	1 (33%)	6 (33%)
Lack of interagency collaboration	2 (50%)	3 (75%)	3 (75%)	2 (50%)		10 (56%)
Lack of awareness	1 (25%)	2 (67%)	1 (25%)	2 (50%)	1 (33%)	7 (39%)
Lack of available prescribers or injectors	3 (75%)		1 (25%)	1 (25%)		5 (28%)
Administrative constraints	2 (50%)	3 (75%)	1 (25%)			6 (33%)
Lack of pharmacy advertising	1 (25%)	2 (67%)				3 (17%)
Inability of pharmacists to provide additional OUD services	3 (75%)	1 (33%)	2 (50%)		1 (33%)	7 (39%)
Negative home or social environment	1 (25%)				1 (33%)	2 (11%)
Lack of insurance	3 (75%)	2 (67%)		4 (100%)	2 (67%)	11 (61%)
Lack of reliable transportation	3 (75%)	3 (75%)	4 (100%)	3 (75%)	2 (67%)	15 (83%)
Lack of stable housing	1 (25%)	1 (33%)	1 (25%)	1 (25%)		4 (22%)
Competing priorities	1 (25%)		1 (25%)	1 (25%)		3 (17%)
Medication side effects		1 (33%)	1 (25%)		1 (33%)	3 (17%)

Table 4.7 Comparative analysis of facilitator categories

	MOUD prescribers (n=4)	Community pharmacists (n=3)	Correctional staff (n=4)	Organization or non-profit staff (n=4)	Patient, family member, or caregiver (n=3)	All stakeholders (n=18)
OUD classification				1 (25%)		1 (6%)
Accessible pharmacy locations	3 (7%%)	2 (67%)	3 (75%)	1 (25%)	2 (67%)	11 (61%)
Flexibility of appointments	1 (25%)	3 (100%)	1 (25%)	1 (25%)	2 (67%)	8 (44%)
Non-judgmental environment			1 (25%)	2 (50%)		3 (17%)
Pharmacy hours	1 (25%)		1 (25%)		1 (33%)	3 (17%)
Patient advocates and social support	2 (50%)	2 (67%)	2 (50%)	2 (50%)	2 (67%)	10 (56%)
Patient-provider relationship	1 (25%)	1 (33%)	1 (25%)	2 (50%)	1 (33%)	6 (33%)
Treatment reminders		2 (67%)				2 (11%)
Having a plan and/or goals		1 (33%)	1 (25%)	1 (25%)	1 (33%)	4 (22%)
Readiness to change			1 (25%)		3 (100%)	4 (22%)

Table 4.8. Representative quotes of barrier categories.

Barriers	
Cost of drug	"I mean, the only thing I think that's frustrating is we've tried looking at us giving the injections of Vivitrol, but they're so expensive." (MOUD prescriber) "When I'm talking transition, they tend to be a little bit messier, but I think because there's so much weight on how expensive the Vivitrol injection is." (Community pharmacist) "There's not a very good financial reason to do this service. Like, we're not getting paid enough money to administer. We're actually not getting paid any money to administer the drug right now. And, so, I think a lot of community pharmacies are not willing to do the service or invest time in the infrastructure of the services because the return is not…it's not good." (Community pharmacist) "That was my initial issue was, like, my insurance wasn't going to cover it, and I was going to have to pay, like, $500 out of pocket. Well, I'm, like, newly clean. I don't have $500 out of pocket." (Patient/Family/Caregiver)
Cost of drug testing	"So, there is something that actually is out there, and it works. It's super expensive. And they were going to send us, like, test kits…and they just never sent us test kits." (MOUD prescriber)
Prescription requirement	"And then, if you don't have a prescription for it, then that's one of the biggest barriers. So, I don't know that, that the systems that they're leaving always put a prescription in their hands for what they need to continue on." (Organization staff) "That authorization to actually inject it here through a nice written prescription…And if they forget to click a box within Epic, or if they forget to write us an Rx note that say's 'Okay to administer here,' we're doing a lot more work of chasing them around…documenting that on the hard copy, printing that out, and making sure that we have it in the patient's chart." (Community pharmacist)
Stigma	"Some agent offices, like I said, are super knowledgeable about it, and some don't want anything to do with that. Because, you know, people are still resistant to some of that stuff." (Correctional staff) "And then, also, just a lot of stigma in different communities about people taking, like, Vivitrol or Suboxone or methadone, you know. There's so much stigma around those medications that some people are just not willing to consider going." (Correctional staff) "You know, I got some later career physicians who are just, you know, this was not the stuff that they learned in their training. And so, they just don't have that comfort level with it, and even if they really have no, you know, hands on need to involve themselves in it, I think just the fact, you know, there's something going on with their patients that they don't know really what it's about, it has them a little nervous. And then, I think there are a group of…there's just kind of this, you know, this farce that, okay, if you open AODA purposes, you're going to attract a certain flavor of patient to your clinic." (MOUD prescriber) "I think so many times, people don't want to go to their primary care doctor because the nurse goes to school with your kids and then, you know, there's, like, this community stigma associated with it." (Organizational staff)

Lack of interagency collaboration	"What I keep coming across was the thing that is needed is, like, collaboration. So, that's where improved outcomes are from. It's collaboration needs to be improved. And if one person can't speak with the other, good luck." (MOUD prescriber) "Like, case managers were trying to connect with people in the jail. That line of communication wasn't always open. So, that could definitely be improved. And I'd say community providers, in my experience, have been very open and eager and willing to help. But for whatever reason, like, it shouldn't be rocket science, but for whatever reason there's that disconnect with the communication in the jail and providers outside of the jail." (Correctional staff) "And so, with this specific drug, how do we grow our network? How do we go out to know the people in the jails and in the prisons?...So, it seems, you know, it's very much that the community pharmacists are a great resource. They're there, and they can play a huge role, but it's still that collaboration piece. Not just all the things the patients are going through, but actually connecting [correctional organizations] with the community pharmacies." (Community pharmacist) "I think there's a lot of assumptions going on that one agency will assume that the other is handling it." (Community pharmacist) "We always had that hesitation, though. Kind of, like, a stay in your lane kind of thing…Every now and again, you'll get pushback from somebody who doesn't really appreciate the whole team-centered approach." (Community pharmacist) "I mean…releases of information are always a barrier. So, but, yeah, if there aren't releases of information, and, like, we don't always get all of the information back…So, maybe the releases of information pieces is a little bit of a barrier, not having the ability to, like, fully communicate one way or the other with that team." (Organizational staff)
Lack of awareness	"I wasn't made aware that this was an option until we were trying to sift through, you know, an insurance barrier where the patient had coverage of the medicine if it was given at the pharmacy versus the clinic." (MOUD prescriber) "So, it's not…it's not broad knowledge at all. And I didn't know that this was an option for years. I only found this out a few years ago, and I've been working the field for 15…So, what I think a lot of barriers are is that people don't even know this exists. And I think that's why it doesn't happen" (Correctional staff) "I don't think it's something that people really know is something they can do. Maybe in other areas it's much more popular. But, like I said, I had no idea." (Organizational staff) "Just knowing that we provide that service, and they're unaware of it, could be a barrier also." (Community pharmacist) "Just a lack of awareness of what's even out there, available. A lot of people, and again, this is mainly anecdotal based on my interactions with participants, but a lot of them will say, 'I didn't even know that there was such as thing of, like, medication-assisted treatment.' So, not even being aware that there's something that could help…But then, also, awareness of how to access it. And I think that's a barrier to people is they just don't know how to ask for help and where to go." (Correctional staff)

Lack of available prescribers/injectors	"Yeah, I mean, you know, there's no, there's no misconception that there is a shortage of healthcare providers in general. So, you know, anything that can be, you know, kind of safely delegated from the clinic to, you know, whoever else…is always a welcome thing" (MOUD prescriber) "It's always a huge challenge, finding treatment providers or injectors. So, like, for example, if I have a patient that's releasing, and I don't know where they're going, I can always connect them with a telehealth provider, which is great access, but then I have to have somewhere where they can get the injection…And, you know, [clinic] has some contracts with some pharmacies…but it's not, there's nothing on a larger scale." (Organizational staff) "So, before I started working here, they had a doctor that came every Wednesday, and that's it. So, if you came on a Thursday, you did not see that provider until the following Wednesday…And I can give them the number of the clinic that we use, you know, that they could get medications from, except for, again, that's usually a big waiting game." (MOUD prescriber) "So, I don't think a lot of doctors are getting involved with prescribing or being involved with that patient population other than [county] practitioners who, that's pat of their work." (Community pharmacist) "We were able to do the injection at [pharmacy]. But an additional barrier is that there wasn't enough trained staff to be able to administer that." (MOUD prescriber)
Administrative constraints	"I can go, and I can look at Epic, right? But that's all I can do. Pharmacists don't even have that. Pharmacists actually don't even have a good charting system for you to document when an injection was given, where it was given, other vital signs, much less track any of that and/or allergies." (MOUD prescriber) "There is some paperwork involved. And at this point, I don't have the ability to follow-up with patients. That would probably be something that we would have to institute." (Community pharmacist) "We do dispense Suboxone and the different forms of films and tablets, but that seems to be less…intense, I guess. Or less, like, I don't know…there's less work to be done in that field or that dispensing because Vivitrol and naltrexone injections are a lot more time consuming and there's a lot more questions to be asked before you give someone that." (Community pharmacist)
Lack of pharmacy advertising	"So, yeah, it's kind of amazing really that people end up finding their way in there. Because I don't feel that, like, our system does a very good job of advertising this type of thing." (MOUD prescriber) "And we're a small pharmacy, right? We just don't have the advertising capacity that a larger chain pharmacy might have. But I don't think we…I don't think the information on how the injection process goes is widely available. I think that's something that we ourselves could do a better job on." (Community pharmacist) "Well, there's probably a lot of people that don't even know the service exists. It's not something that we advertise broadly…So, it's by word of mouth that my information has gotten out there. But God only knows the other counties, that information might not be shared." (Community pharmacist)
Inability of	"So, my only question with the community pharmacy administering the Vivitrol is that these other places, when our participants would go, they would have at least, like,

pharmacists to provide additional OUD services	an hour of counseling what was associated with that. So, it wasn't just come in, get your treatment, and go…And so, that would be the concern, I guess. Do you lose something if you don't have that component? Or can the person just be getting that component somewhere else?" (Correctional staff) "There's this other thing that I think is more important where you should initiate oral meds of naltrexone prior to giving an injection. And that's from the standpoint, right, like, if you inject someone with Vivitrol, and they happen to be allergic to a component that you weren't aware of, that's in their body for 20 days versus a tablet might be there for…I think that's less restrictive, but still a bit of a barrier." (Community pharmacist) "[A barrier] can be needing to get, well, so, monitoring labs or doing, just getting, like, bloodwork sometimes. Having access to that." (MOUD prescriber)
Negative home/social environment	"Because I think that's every, like, every addict's main fear, right? Like, am I going to steer clear of, like, these people, these places, these things that are going to bring me down. A lot of people come from families where their mom or dad or sister living the same house as them, and they're getting high. So, like, am I going to be able to stay away from that?" (Patient/Family/Caregiver) "We did have individuals that would go back to their environment after they were incarcerated and continue using. And, of course, those fold wouldn't come in for their injection, or would come in an test positive." (MOUD prescriber)
Lack of insurance	"Another major barrier was this insurance thing where…now this is commercialized insurance, so keep that in mind…but they wouldn't even cover Vivitrol on the medical side." (Community pharmacist) "In addition to that, I think insurance is a huge, you know, huge barrier. We have been able to now with the Medicaid changes in our state, we have jail reentry coordinator…at least be able to sign folks up before they leave…but I still think people are being missed." (Organizational staff) "I would say, you know, insurance is a huge barrier for this population. So, I'd say, just their ability to return for a follow-up is sometimes very limited, and then whatever coverage they might have for their medical care could be limited." (MOUD prescriber) "Yeah, so, the biggest barrier for anybody with anything after they're released is having insurance. Because when someone is incarcerated, it's turned off…And so, the funding of any treatment after release is always a huge challenge." (Organizational staff)
Lack of reliable transportation	"They don't have transportation. And [company], which is the state transportation of folks on Medicaid or Medicare, it's an awful system. It's not…they don't show up a lot." (Organizational staff) "So, I mean, I think, you know, a lot of people have transportation barriers…You know, a lot of my patients have revoked driver's license right now. So, you know, their transportation is very limited." (MOUD prescriber) "Transportation is always a problem I would say. Unless somebody has a very solid system in the community, they tend to struggle." (Correctional staff) "So, like, I definitely think, like, more reliable transportation…Like, you need

	reliable transportation, especially for things, like, that are, like, life threatening. Which his the same for Vivitrol, you know? Like, if you can't get there and get the injection, and it's not even your fault, like, then what?" (Patient/Family/Caregiver)
Lack of stable housing	"You know, the hard part is, you know, when I see these people, they're commonly in an unstable living condition situation. They're kind of couch surfing. They don't know where they're going to be from day to day. I've got one client who is, you know, residing at the YMCA and, you know, it's touch and go." (MOUD prescriber) "I notice a lot fail or are inconsistent with treatment…whether it's Vivitrol or just, you know, AODA group or classes...they really struggle to be consistent with that if they don't have housing…They're constantly in fear that they don't have a secure place." (Correctional staff) "A lot of times, you're relying on those patients to be adherent, and they don't have, you know, places to even keep things. They have a backpack on them, and that's it." (Community pharmacist) "I think, you know, housing stability, like, in their, you know, outside life…Like if they don't have stable housing, they don't show up a lot." (Organizational staff)
Competing priorities	"Another barrier that we found for our clinic was we have these individuals that we are trying to get them re-established in the community in a healthy way. They have a job and want to be involved with their children and so on and so forth. So, to be able to take time off of work when they just started this job during normal business hours…some of them are like 'I understand I need this shot, but I also need this job.'" (MOUD prescriber) "So, the priority is on trying to get a job. It's on trying to get a safe place to sleep. It's trying to figure out how do I make it to my parole agent's office that is ten miles from where I am. So, those are very legitimate challenges that these men and women are facing. And I think that makes it even more difficult for them to pursue treatment." (Correctional staff)
Medication side effects	"A flu shot is half an mL of aqueous solution, right? So, it goes in the body really fast, and it's not very much. Vivitrol is 4.2 mLs, basically creates a small depot, right? And it's slowly dispersed in the body. So, a lot of people will experience pain and don't have a high pain tolerance. Then it doesn't really work for them." (Community pharmacist) "That sometimes really scares them and turns them away, I've noticed. Like, I've had a couple guys be like, 'I was really interested, but then I read all those side effects.'" (Correctional staff) "It's one of the worst shots you can get. You are sore for, like, two weeks after getting that thing." (Patient/Family/Caregiver)

Table 4.9. Representative quotes of facilitator categories

Facilitators	
OUD classification	"The ADA actually made opioid use disorder a disability, which gives them protected rights to continue the treatment as well." (Organizational staff)
Accessible pharmacy locations	"It's more accessible for certain people who may not have cars or a bus route that leads to the doctor. It's just more accessible." (Patient/Family/Caregiver) "But if they're comfortable doing that, then you have, you know, a pharmacy close by that they can walk to to have that done…One of the things we hear, sort of, in thinking about community pharmacies, one of the things you always hear is, like, the accessibility because there are locations everywhere." (MOUD prescriber) "And so, if there was, you know, if there was an issue getting, you know, to one place or the other, you know, there's a community pharmacy, you know, in walking distance to them that they wouldn't have to get on a the bus or get a ride or all that kind of thing." (MOUD prescriber) "If people could wake up and go down the road to [pharmacy] and get the shot, that would be huge." (Patient/Family/Caregiver) "There's so many pharmacies all over the place, so they could just walk to you and get it. They don't have to stress about, okay, got to have enough money for a bus ticket or, like, got to make sure I have a family member lined up to drive me." (Correctional staff)
Flexibility of appointments	"I have the ability of getting people in and out of here with a very short notice. It's not like needing an appointment a month in advance, or three days in advance. It's typically, hey, they've had their drug screening, or I'm going to bring them in next week, what time works best?" (Community pharmacist) "But I think it's reasonable to get back in within 24 hours or missing your appointment. Because if you think about it from a clinic or hospital side, if you miss your appointment, like, you're probably not back in for at least a month." (Community pharmacist) "I think that would be very beneficial. And if you're not comfortable at a pharmacy, it's so easy to switch to a different pharmacy. A lot easier than going to a different treatment center." (Correctional staff)
Non-judgmental environment	"Where I guess the pharmacy, to me anyway, doesn't seem like it would carry the same…because they know everybody's secrets. They know everything, everybody's treatment. But yet, you don't really worry about the pharmacist telling somebody you just bought a fungal cream or whatever…If a pharmacist had a desire to treat these folks, it could also be a very nonjudgemental environment for people to receive care." (Organizational staff) "I think that community pharmacists are more likely, or less likely I should say, to be judgmental than maybe your [clinics]." (Organizational staff) "A lot more clients, I feel like, if they got set up, and they're, like, prescribed, would rather go to a pharmacy and go get a shot where it doesn't really look like you're going to these specified treatment facilities where everyone in there knows that you have a substance use disorder. You can go into your neighborhood pharmacy, where you've been known for years. Like, you know, everyone in there gets a shot. You can

	play if off as whatever you want to play it off as." (Correctional staff)
Pharmacy hours	"Because it can work around more, like, hey, I'm leaving for work at this time. Let me just go get my shot before I go to work. I feel like it will help their schedule a lot too." (Correctional staff) "Pharmacies are open on the weekends and later in the evenings. I know some pharmacies that are open at 7 a.m. So, I feel like that accessibility of time." (MOUD prescriber) "I feel like [community pharmacies] are more flexible with their hours." (Patient/Family/Caregiver)
Patient advocates/social support	"There are certainly case managers…I guess that's a broad label…but they will work with patients who can set up appointments for themselves or figure out how to get rides, transportation for patients. And that seems to be more successful." (Community pharmacist) "In many ways, family members are amazing. Like, 'My brother is going to pick me up and take me to the clinic.' And also having [peer support specialists] has really helped it flow and taken the pressure off a lot of people." (Organizational staff) "Just, like, having a new support system…And so, I think making sure they find someone who's a peer support or someone that maybe is a new support that wasn't in their life. So, a few of my guys come out and they have, like, a priest, friends, or pastors…I think having someone that keeps them accountable is very helpful." (Correctional staff) "Most folks, if they're serving, like, a jail sentence, they get out at 4 a.m. Nothing good happens at 4 a.m. And even if you did have a, you know, prescriber of treatment or appointment at 6 a.m., you still have two hours…you know, a lot can happen in two hours depending on who picks you up from jail. And we have peer providers that will do that a lot of times and, like, hang out with them, take them to breakfast, and then take them to their appointment, so that they're not, you know, jumping in the car with somebody else that, you know, they used to hang out with before, and they're, like, off to the races, and they don't…you know…like, that appointment is no longer a priority for them." (Organizational staff)
Patient-provider relationship	"I think it goes back to being invested in their, in their well-being…I'm biased, but I think we do a better job than some of our competitors…We take, we take the extra time, and we are trying to re-envision some of our models as patient-centered…For some, it's a name on the screen. It's another prescription. Taking that mentality and flipping it and trying to think of, you know, if this were my loved one…This is not just a name on the screen. These are my patients that are, you know, keeping the lights on. So, we've been trying to change that mentality, and it's been going really, really well." (Community pharmacist) "You have to find a way to motivate them and help them understand that you are here for them, while giving them the inspiration and motivation to let them know that you can do this." (Organizational staff) "So, a lot of the important part of is just, you know, explaining to them, you know, your role in this. Like, I'm here to make this happen for you, and you know this is what I want to do for you, and getting their trust and getting their buy-in, and, you know, kind of helping them to know that, you know, I'm not just part of their punishment. I'm hopefully trying to be, you know, part of their recovery." (MOUD

	prescriber) "People who are recently released, respect is a big thing. So, as soon as they don't feel respected, they're really going to shut down, and they're ready to be just, like, yeah, no, I'm done." (Correctional staff)
Treatment reminders	"We have a newer system now that does text and phone call reminders. We started off with just making physical, manual phone calls, you know, person to person, making sure you're talking to somebody. And now we have the ability to send off text messages to say, 'Hey, your appointment is coming up.'" (Community pharmacist) "We do offer text messages when the prescription is filled. So, that could be a reminder that they need to show up for their appointment…But I know that they're coming in the next day, so I will queue up the Vivitrol prescription to be filled that next day. So, they'll get a text as soon as that's done." (Community pharmacist)
Having a plan and/or goals	"I talk to patients the first time I meet with them about establishing their "why" of why you are here…whether it's court-ordered or whether you're here because you want to better yourself. Vivitrol in itself is not something that is going to be a quick fix. It's not something that you're going to get your injection and today I'm never going to use again. Whether it's alcohol or opioid, you need to have some sort of mentality and, sort of, drive as to why you want to get healthy." (Community pharmacist) "There's also, like, a goal setting worksheet. So, like, their short-term, long-term goals, how, like, they should involve their support with Vivitrol, how they can better manage with counseling…so, that's been [a facilitator]" (Correctional staff)
Readiness to change	"There was a more serious effort with [his] side. You know, wanting to improve his life and get out of the lifestyle…You saw the difference and the attitude change." (Patient/Family/Caregiver) "Fortunately, at that time, I was ready to make a change. And that was a big thing too." (Patient/Family/Caregiver) "And so, going into it the second time, being more ready, being more willing. It was a game changer for me." (Patient/Family/Caregiver) "I think a lot boils down to somebody's, like, readiness to change, right? Like people actually buying in, wanting to engage right out of custody." (Correctional staff)

Discussion

Overall, both barriers and facilitators were identified at every level of the Socioecological Model. In general, though, participants identified a higher number of barriers. This aligns with the idea that formerly incarcerated individuals are not utilizing community pharmacist-provided injectable naltrexone upon reentry. In terms of barriers, the most prevalent categories were at the

community, organizational, and individual level and included lack of interagency collaboration, lack of awareness, inability of pharmacists to provide additional OUD services, lack of insurance, and lack of reliable transportation. A focus on reducing these barriers may be an important and impactful first step in improving access to injectable naltrexone for formerly incarcerated individuals. On the other end of the spectrum, the most prevalent facilitator categories were at the community, organizational, and interpersonal level. These included the accessible location and flexibility of community pharmacies and the availability of patient advocates. This not only confirms that community pharmacies are a promising resource, but figuring out how to further leverage facilitators, such as patient advocates (peer support specialists, case managers, etc.), can also help improve outcomes.

Overall, there was a high level of concordance between the different stakeholder groups that participated in this study. For example, each of the categories mentioned above were identified by no less than four stakeholder groups, and most were identified by all groups. Additionally, as anticipated, formerly incarcerated individuals and family members/caregivers offered similar perspectives, supporting the decision to include these participants as one stakeholder group. There were only a few examples of discordance noted between the participants. These included discussions of community pharmacy hours and whether or not community pharmacies provide a private and non-judgmental environment for individuals to receive naltrexone injections. Participants from the individual patient/family/caregiver group in particular expressed concerns surrounding privacy and judgement, suggesting that they may have a different perception of the community pharmacy environment compared to other stakeholder groups. With that in mind, providers and support staff should not automatically assume that patients are comfortable receiving MOUD in community pharmacies.

The results also showed a lot of overlap and/or connections between barriers and facilitators. First, while one participant may have identified a specific resource as a facilitator, another may have noted that the absence of that resource would create a barrier. Second, participants noted that certain factors could have an influence on each other. For example, lack of pharmacy advertising (organizational level) may directly relate to a lack of awareness of community pharmacy services (community level). Similarly, having a social support system (interpersonal level) may help an individual create a plan or identify treatment goals (individual level). Lastly, the high cost of injectable naltrexone (public policy level) may directly limit the availability of community pharmacies that provide this medication (community level).

Many of the barriers and facilitators noted by participants echo what is shown in the existing literature. This is expected, as factors impacting one MOUD option or treatment location – especially factors at the individual and interpersonal levels - are likely to impact access to injectable naltrexone via community pharmacies. For example, lack of insurance or lack of transportation can impact access, regardless of which medication or provider an individual is trying to use.[21-31] Additionally, previous work has highlighted some of the barriers that community pharmacies face in being able to provide injectable naltrexone services, and many of these factors were identified in this study.[42] This is also expected, as barriers to providing certain services are likely to exist regardless of the patient populations or sub-populations who may be using them. However, despite these similar findings, a significant number of categories were also specific to community pharmacist-provided treatment for formerly incarcerated individuals, and most aligned with the organizational and community level. Notably, these categories included 1) lack of interagency collaboration between primary care clinics, correctional facilities, and community pharmacies (exacerbated by patients requiring a prescription prior to injection) and

2) lack of awareness of community pharmacist-provided naltrexone services, especially among correctional staff. Even community pharmacists knew that awareness of their injectable naltrexone services was limited among other professionals and the public. They explained that this was due, in part, to the decision or inability to advertise injectable naltrexone services.

This study presented a few limitations that should be mentioned. For starters, because data collection and analysis (specifically the coding process) were predominantly done by the lead researcher, the dependability and confirmability may be challenged. While this was mainly due to limited resources, the researcher performed several steps to mitigate this limitation. In addition to having a second coder perform deductive content analysis on >20% of the interviews, the researcher made sure to discuss categories (and any ambiguities) with senior researcher advisors on a regular basis. The researcher also utilized a framework that has been previously used to assess barriers to MOUD for justice-impacted individuals.[29] Additionally, the researcher was able to compare the results of this study to barriers and facilitators identified in previous studies, and many of the results aligned.

Additionally, while the researcher felt that saturation was reached and there was a high level of concordance between the different stakeholders, there were only three to four participants recruited per group. On top of that, certain participants did not have direct experience with coordinating, providing, or receiving community pharmacist-provided injectable naltrexone. These participants discussed anticipated barriers and facilitators based on their perceptions and/or experiences with community pharmacies. Also, this study did not distinguish between formerly incarcerated individuals who were released to the community from jail or prison (either with or without supervision), nor between those who were continuing or initiating injectable naltrexone upon community reentry. Overall, it is possible that saturation was not

reached within each stakeholder group, or that the results may have differed with stricter inclusion and exclusion criteria as it relates to the characteristics noted above.

Finally, several limitations relate to the transferability of the results. Because initial recruitment was slow, and snowball sampling was used to find additional participants, it is possible that bias was introduced. It is also possible that snowball sampling limited the recruitment pool in general. Additionally, the stakeholders included in this study represented several counties across Wisconsin, including urban and rural areas. However, since individuals from every county could not be included, it is possible that the results are not completely representative of all stakeholders' experiences across Wisconsin. The smaller sample size also prevented the researcher from identifying urban and rural differences. Lastly, across all stakeholder groups, the participants were predominantly female, white, and did not identify as Hispanic or Latino, resulting in a homogenous sample. Despite these limitations, this study was intended to be exploratory in nature, and additional work can help ensure the transferability of results.

It should also be noted that the family members or caregivers were not formerly incarcerated or diagnosed with OUD. As a result, their responses to the interview questions were not based on lived experiences with reentry or accessing community pharmacist-provided injectable naltrexone for self-treatment. Rather, their responses were based on their perception of the barriers and facilitators that exist from observing a family member or patient who has had these experiences. However, participants who were formerly incarcerated individuals with OUD or family members/caregivers of these individuals identified similar barriers and facilitators during the interviews.

Future research could focus on confirming these findings by including a larger sample of stakeholders or applying additional triangulation methods, such as utilizing a different framework or methodology (for example, surveys). Additionally, as anticipated, the participants did not comprehensively discuss the barriers and facilitators that exist at the public policy level. As a result, next steps should focus on exploring the laws and regulations that impact access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals in Wisconsin. Next steps should also focus on understanding how the barriers identified in this Aim can be feasibly addressed through intervention or policy development, especially those that were highly prevalent and specific to community pharmacies. Potential interventions could focus on directly reducing barriers and/or helping formerly incarcerated individuals further leverage resources that support access to community pharmacist-providing injectable naltrexone. Importantly, this work can add to the current research in progress and help emphasize the importance of addressing this healthcare gap. Long-term, these findings may also be applied to areas outside of Wisconsin.

The barriers and facilitators identified in this Aim provide an opportunity to improve access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals with OUD. Overall, improving access to these services for this patient population has several social and public health implications, including 1) decreased overdose rates, 2) decreased rearrest/reincarceration rates, 3) improved mental health outcomes, 4) reduced healthcare costs, 5) improved family/community health and safety, and 6) reduced racial/ethnic health disparities. Importantly, improving community reentry for individuals with OUD can also help ensure that this patient population is not tossed aside, but given the opportunity to successfully reintegrate into society.

Chapter 5: Legal Analysis and Environmental Scan of Community Pharmacist-Provided Injectable Naltrexone for Formerly Incarcerated Individuals in Wisconsin

Abstract

Opioid use disorder (OUD) is highly prevalent among individuals impacted by the criminal justice system. Medications for opioid use disorder (MOUD) – which includes methadone, buprenorphine, and naltrexone – are a key component in OUD treatment and are especially important for individuals as they transition out of correctional facilities and back into the community. However, few formerly incarcerated individuals are able to access sustainable MOUD upon community reentry. Community pharmacists are uniquely positioned to provide care for formerly incarcerated individuals with OUD, specifically by providing long-acting naltrexone injections. Importantly, pharmacists are more accessible than other healthcare providers. Unfortunately, community pharmacists are not often utilized by formerly incarcerated individuals during reentry, and previous literature has not examined barriers and facilitators to community pharmacist-provided treatment for these patients. As a result, Aim 1 of this project explored these barriers and facilitators through multi-stakeholder interviews. Factors identified by stakeholders were mapped to the Socioecological Model. To supplement Aim 1 and provide additional context to the public policy and community-level factors that play a role, the researcher conducted a legislative analysis and environmental scan. Wisconsin statutes and administrative codes with implications for community pharmacist-provided injectable naltrexone for formerly incarcerated individuals were identified through a review of legal databases. Overall, 24 statute subsections (from 7 chapters) and 31 administrative code subsections (from 12 chapters) were identified. Additionally, an environmental scan of available injectable naltrexone services in Wisconsin was conducted via vivitrol.com and a structured Google search.

The scan resulted in the identification of non-pharmacy sites that both prescribe and inject naltrexone (n=66), non-pharmacy sites that only prescribe injectable naltrexone (n=5), and community pharmacies that provide naltrexone injections (n=28). A list of supplemental services provided by the community pharmacy sites was also collected. Both the legal analysis and environmental scan showed the importance of increasing the number of community pharmacies that provide naltrexone injections and that pharmacies can provide an optimal location for formerly incarcerated individuals to receive care. While pharmacists may face barriers at the public policy level, there are several resources outlined in the legislation that can facilitate availability and use injectable naltrexone services. Future work should help community pharmacies leverage available resources and overcome existing barriers. Importantly, updates should be made to existing Wisconsin statutes and codes to ensure pharmacists are recognized as OUD treatment providers and can help formerly incarcerated individuals thrive upon community reentry.

Introduction

In 2017, the opioid epidemic was named a public health emergency in the United States.[1] Since then, more than three million U.S. citizens have previously or currently suffered from opioid use disorder (OUD), a pattern of continued opioid use despite harmful health and social outcomes.[2-3] The state of Wisconsin has been no exception. From 1999 to 2019, there as a 900% increase in opioid overdose deaths in the state.[5] In 2022 alone, there were 1,464 opioid-related deaths.[6]

OUD is highly prevalent among individuals impacted by the criminal justice system. A report by the Buruea of Justice Statistics showed that 20% of those in jail and 15% of those in prison are there for a drug-based offense, and an estimated two-thirds have a substance use disorder, with up to 25% having a diagnosis of OUD. Overall, 20% of people with OUD have

been involved in the criminal justice system in some way.[4] Again, this remains true in Wisconsin. In 2019, the Wisconsin Department of Corrections (DOC) reported 1,691 and 754 opioid overdose hospitalizations among those admitted to probation and those released from prison, respectively. This demonstrated an 89% increase from 2013. Additionally, the Wisconsin DOC reported 325 opioid overdose deaths among those admitted to probation and 276 among those released from prison. Overall, opioid offenses were 3.3 times higher in people who died after admission probation compared to others admitted to probation and 2.1 times higher in people who died after release from prison than other released from prison.[7]

Medications for opioid use disorder (MOUD) – which includes methadone, buprenorphine, and naltrexone – are a key component in OUD treatment.[8] Due to the prevalence of OUD in correctional settings and the importance of these medications in treatment, the availability of MOUD within jails and prisons has expanded over the last decade.[9] Additionally, continuation and/or initiation of MOUD is especially important for individuals transitioning out of these facilities and back into the community. Formerly incarcerated individuals receiving MOUD are 85% less likely to die due to drug overdose in the first month after release and have a 32% lower risk of rearrest.[16] However, few formerly incarcerated individuals are able to access sustainable MOUD upon community reentry. Previous work has shown that due to a variety of barriers, less than half of individuals using MOUD continue these medications upon community reentry.[18-32] In Wisconsin, community links to MOUD are provided by less than half of jails.[10]

As mentioned, three medications have been approved by the U.S. Food and Drug Administration (FDA) for treating OUD, one being naltrexone, which is available as an extended-release injection.[40] When it comes to justice-impacted individuals, injectable naltrexone has been shown to improve retention in treatment, reduce re-incarceration, improve

opioid abstinence, and reduce opioid relapses. Additionally, because of its long-lasting duration and lack of abuse potential, injectable naltrexone has become an accepted treatment option for justice-impacted individuals.[41] In Wisconsin, 84% of jails and 100% of prisons offering MOUD offer naltrexone. Importantly, providers do not require special licensure or certification to prescribe naltrexone.[15,40]

Community pharmacists are uniquely positioned to provide care for formerly incarcerated individuals with OUD, specifically by providing naltrexone injections.[42] Compared to other healthcare providers, community pharmacists are more accessible to patients. They also have the knowledge to educate patients on the pharmacological aspects of MOUD, are receptive to providing these medications, and have played a role in other opioid use and safety initiatives.[44-48] However, prior to the start of this project, preliminary interviews between the researcher and Wisconsin correctional staff showed that community pharmacist-provided services are not often utilized for formerly incarcerated individuals reentering the community. Previous work has examined barriers and facilitators faced by community pharmacists in providing naltrexone injections.[42] Additionally, previous work has explored barriers and facilitators faced my formerly incarcerated individuals in accessing MOUD from non-pharmacist providers (see Chapter 2). However, factors impacting access and use of community pharmacist-provided injectable naltrexone by formerly incarcerated individuals in particular have not been researched.

With that in mind, Aim 1 identified these factors across the Socioecological Model (see Chapter 4). The goal of Aim 2 is to complement Aim 1, especially because the researcher anticipated limited discussions at the upper levels of the Socioecological Model. Accordingly, this Aim included two main objectives. First, to explore the legal environment in Wisconsin and add additional context to the barriers and facilitators that exist at the public policy level. Second,

to explore the physical environment in Wisconsin and highlight the availability of community pharmacist-provided injectable naltrexone services. To meet these objectives, the researcher used legal databases to identify and analyze Wisconsin statutes and administrative codes that have implications for community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. Additionally, the researcher performed an environmental scan using online resources and a structured Google search and synthesized available injectable naltrexone services across Wisconsin.

Methods

Legal analysis

A legislative and regulatory review was conducted to compile and synthesize the existing statutes and administrative codes in Wisconsin with implications for to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals during community reentry. Since this review was meant to be exploratory in nature and had a broad goal, the researcher determined that a scoping review approach was most appropriate. The lead researcher met with three librarians at Ebling Library and the University of Wisconsin-Madison Law School to discuss the optimal methods for identifying relevant statutes and codes. First, the librarians assisted the researcher in identifying keywords to use in the search. As a starting point, the researcher shared the keywords utilized in the initial literature review, which were identified using an adapted version of the PICO method (see Chapter 2).[49] The librarians suggested using broader terms, as this better aligns with the language used in the statutes and codes. For example, legislation often uses the term, “substance use disorders,” which can include implications for “opioid use disorder.” The researcher modified the keywords based on these suggestions, as shown in Table 5.1. These keywords were then used to search relevant electronic databases, including Fastcase and Thomas Reuters Westlaw. The search string is further detailed in

Appendix 6. Of note, this process follows the methodology used in previous research that identified Wisconsin statutes and regulations related to pharmacist-provided MOUD services.[42]

Table 5.1. Keywords used in legal database search

Population	Condition	Intervention	Environment
• Prison • Jail • Criminal • Correction • Justice • Incarcerated • Incarceration	• Opioid use disorder • Substance use disorder • Drug addiction • Drug abuse • Substance abuse	• Medication • Medications for opioid use disorder • Medication-assisted treatment • Substance use disorder treatment • Substance abuse treatment • Methadone • Buprenorphine • Naltrexone • Pharmacy • Pharmacist	• Transition • Reentry

The search was used to identify Wisconsin statute chapters and Wisconsin administrative code chapters that included the keywords discussed above. Statutes (or statutory law) includes acts passed by the Wisconsin Legislature. Administrative code (or administrative law) includes regulations made by state executive agencies and guides how these agencies enforce statutory law. In other words, administrative code outlines how executive agencies both interpret and implement statutes.[83] Full chapters were compiled, and no duplicates were included between the two databases. In total, 26 statute chapters and 40 administrative code chapters were included for full review. Full chapters were then manually reviewed for specific subsections related to the topic. Subsections were included if they 1) highlighted the need for pharmacist-provided injectable naltrexone for formerly incarcerated individuals or 2) potentially served as a barrier or facilitator to these services. After manual review, 24 statue subsections (from 7 chapters) and 31 administrative code subsections (from 12 chapters) were included. Summaries of each subsection, as well as their implications, were presented in table format. All statutes and codes were current as of April 2024.

Environmental scan

An environmental scan was also performed to identify available outpatient injectable naltrexone services in Wisconsin, including those provided by both community pharmacists and non-pharmacist providers. The scan was performed to further complement the legislative and regulatory review and provide additional context to the community level of the Socioecological Model. As a starting point, the researcher utilized vivitrol.com to collect a list of available providers in Wisconsin.[84] The researcher also performed a manual review using a structured Google search to identify additional providers and/or injectors that were not captured on vivitrol.com. The search phrases were supported by UW librarians and are outlined in Table 5.2.

Table 5.2. Phrases used for structured Google search

Search phrase
• Wisconsin injectable naltrexone provider • Wisconsin Vivitrol provider • Wisconsin injectable naltrexone injector • Wisconsin Vivitrol injector • Wisconsin injectable naltrexone pharmacy • Wisconsin Vivitrol pharmacy • Wisconsin injectable naltrexone clinic • Wisconsin Vivitrol clinic

The researcher reviewed the first ten Google pages of each search. To be included, the sites had to be located in Wisconsin, have a website in English, provide outpatient care, and have a provider who prescribes and/or injects injectable naltrexone. Any sites not meeting these criteria were excluded. Additional provider and injection sites, including site names and addresses, were collected. The researcher then mapped all available services in Wisconsin using Google Maps. Three separate maps were created: 1) community pharmacies that provide naltrexone injection services, 2) non-pharmacist providers that both prescribe and inject naltrexone, and 3) non-pharmacist providers that only prescribe injectable naltrexone. Finally, for the community pharmacies that provide naltrexone injections, the researcher performed a

manual review of the organizations' websites to identify supplemental patient services provided at these sites. All searches were conducted during April 2024. Of note, the idea to conduct an environmental scan, as well as the methodology that was used were guided by previous scans focused on health clinics and/or services within defined geographic areas.[85-86]

Results

Legal analysis

Overall, 7 Wisconsin statute chapters included subsections with implications for community pharmacist-provided injectable naltrexone services for formerly incarcerated individuals. These 7 chapters are outlined in Table 5.3. From these 7 chapters, a total of 24 subsections were identified. These subsections and the corresponding implications are summarized in Table 5.4.

Table 5.3. Wisconsin statute chapters with implications for community pharmacist-provided injectable naltrexone for formerly incarcerated individuals

Chapter numbers and titles
• Chapter 46: Social services • Chapter 49: Public assistance and children and family services • Chapter 51: State alcohol, drug abuse, developmental disabilities and mental health act • Chapter 146: Miscellaneous health provisions • Chapter 153: Health care information • Chapter 301: Corrections • Chapter 450: Pharmacy examining board

Table 5.4. Summaries of statute subsections and implications

Sections/citations	Implications
Chapter 46: Social services	
46.234(2)(c) The department shall maintain a registry of approved recovery residencies, and all residencies must agree to help facilitate active recovery for residents.	Formerly incarcerated individuals may utilize recovery residences, and recovery can include MOUD. This further highlights the need for MOUD providers/injectors, and relationships between community pharmacists and recovery residencies can facilitate community pharmacist-provided services.
46.234(3) The department may not include a recovery residence in the registry if it excludes a resident from participating in medication-assisted treatment.	Recovery residencies must allow residents to receive MOUD, further highlighting the importance of available providers/injectors, including community pharmacists.

46.40(1)(a) The department may distribute funds for community social, mental health, developmental disabilities, and alcohol and other drug abuse services. .	Community pharmacies may receive funding to provide services related to drug abuse, which can facilitate their ability to provide naltrexone injections.
46.47 (1-3) The department may award grants to provide nonnarcotic, non-addictive, injectable medically assisted treatment to a county that has a jail or drug court, provides care coordination for reentering inmates, and has identified how it will ensure all program participants are enrolled in Medical Assistance and will continue treatment upon reentry.	In order for counties to receive grants to provide injectable naltrexone to incarcerated individuals, they must ensure that these individuals can continue treatment upon reentry. This not only highlights the need and potential role of community pharmacists, but this requirement may help facilitate relationships between correctional organizations and community pharmacies.
46.48(30) The department may distribute grants to private nonprofit organizations for the provision of alcohol and other drug abuse treatment services in counties with a population of 750,000 or more. Treatment should only be provided to individuals who are eligible for federal temporary assistance for needy families.	Community pharmacies in populated areas may receive funding to provide services related to drug abuse, which can facilitate their ability to provide naltrexone injections. In particular, this funding is targeted toward individuals who are eligible for temporary assistance, which may include formerly incarcerated individuals.
46.482(2-4) The department shall maintain a program to facilitate overdose treatment providers to help coordinate and continue care and treatment of individuals after an overdose, including referral to treatment services. Care coordination may include transportation to and from treatment. The department may seek grant funding to establish and maintain the program.	The program provides an opportunity for overdose treatment providers to refer individuals to community pharmacies for treatment services. Transportation services may further facilitate the ability of formerly incarcerated individuals to access treatment, including injectable naltrexone, from community pharmacies.
46.65(1) The department shall implement a treatment alternative program. The department shall make grants to provide alcohol or other drug abuse services, as a treatment alternative in lieu of imprisonment, for eligible persons in need of those services. The department shall make grants so that the treatment alternative program serves a variety of geographic locations.	The program provides an opportunity for community pharmacists to be involved in treatment services, which can be beneficial for formerly incarcerated individuals who face reincarceration due to a drug-related crime. Community pharmacists may be an especially beneficial resource, as the program aims to serve a variety of geographic areas.
46.973(2) A drug dependence and drug abuse program is established in the department. The secretary may develop and carry out programs concerned with education about and prevention of drug dependence and drug abuse and programs concerned with treatment and rehabilitation of drug dependent persons and persons who abuse drugs.	This program can facilitate community pharmacist-provided injectable naltrexone services by 1) educating individuals (including formerly incarcerated individuals) on the availability of these services and 2) including community pharmacies in the development of treatment and rehabilitation programs.
46.975(2) The department shall allocate funds to community-based organizations for providing drug abuse interventions and treatment directed at low-income Hispanics and Black Americans in urban areas, women, and youth.	Community pharmacies may receive funding to provide treatment related to drug abuse, which can facilitate their ability to provide naltrexone injections. This funding is directed at low-income Hispanics and Black Americans, who are often disproportionately impacted by incarceration for drug-based offenses.

Chapter 49: Public assistance and children and family services	
49.167 (1) The department may award grants private entities to provide community-based alcohol and other drug abuse treatment programs that are targeted at individuals who have a family income of not more than 200 percent of the poverty line and who are eligible for temporary assistance for needy families.	Community pharmacies may receive funding to provide treatment related to drug abuse, which can facilitate their ability to provide naltrexone injections. This funding is directed at low-income individuals, which can include formerly incarcerated individuals.
49.46(2)(bh) The department shall provide reimbursement for services that are reimbursable under this section and that are provided by a licensed pharmacist within the scope of his or her license.	Community pharmacists can be reimbursed for services provided within their scope of practice (including providing injectable naltrexone) to individuals receiving Medical Assistance. This can facilitate their ability to provide these services.
Chapter 51: State alcohol, drug abuse, developmental disabilities and mental health act	
51.41(1s) The Milwaukee County mental health board shall facilitate delivery of mental health services in an efficient and effective manner by making a commitment to community-based, person-centered, recovery-oriented, mental health systems and maximizing comprehensive community-based services.	Collaboration between the mental health board and community pharmacies may help facilitate access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals.
51.4224(1) “Opioid treatment system" means a structured delivery system for providing substance abuse prevention, intervention, or treatment services and 1) receives funds through the state under this chapter and 2) is approved by the state methadone authority.	Community pharmacists are not included in the definition of an “opioid treatment system,” which may create barriers related to awareness and/or inclusion of community pharmacist-provided services or limit funding opportunities for community pharmacies.
51.423(1) The department shall fund, within the limits of the department's allocation for mental health services, services for mental illness, developmental disability, alcoholism, and drug abuse to meet standards of service quality and accessibility.	Community pharmacies may receive funding to provide services related to drug abuse, including providing injectable naltrexone.
51.448(1-3) The department shall create and administer an addiction medicine consultation program to assist participating clinicians (physicians, nurse practitioners, and physician assistants) in providing enhanced care to patients with substance use addiction and to provide referral support for patients with a substance abuse disorder. The department shall review proposals and provide money to organizations seeking to provide consultation services through the addiction medicine consultation program under this section.	The consultation program, including available funding, has the potential to facilitate community pharmacies’ abilities to provide injectable naltrexone services, including for formerly incarcerated individuals. However, pharmacists are not explicitly included as participating clinicians, which creates barriers for this support.
51.45(4) The department shall develop, encourage and foster statewide, regional, and local plans and programs for the prevention of alcoholism and drug dependence and treatment of alcoholics, persons who are drug dependent, and intoxicated persons in cooperation with public and private agencies, organizations, and	Coordination between the department and community pharmacies can help facilitate awareness of and access to community pharmacy-provided services, including injectable naltrexone, for any patients seeking treatment for drug dependence, including formerly incarcerated individuals.

individuals and provide technical assistance and consultation services for these purposes. In doing so, the department shall coordinate with all public and private agencies, organizations and individuals interested in prevention of alcoholism and drug dependence and treatment of alcoholics, persons who are drug dependent, and intoxicated persons. 51.45(7)(a-c) The department shall establish a comprehensive and coordinated program for the treatment of alcoholics, persons who are drug dependent, and intoxicated persons. The program of the department shall include outpatient and follow-up treatment. The department shall provide for adequate and appropriate treatment for alcoholics, persons who are drug dependent, and intoxicated persons.	The program provides an opportunity for community pharmacist-provided injectable naltrexone to be integrated into available outpatient services for persons who are drug dependent, including formerly incarcerated individuals.
Chapter 146: Miscellaneous health provisions	
146.89(3)(a-b) Any volunteer health care provider and nonprofit agency whose joint application is approved may provide the following health care services: diagnostic tests, health education, information about available health care resources, office visits, patient advocacy, prescriptions, and referrals to health care specialists.	Community pharmacists can partner with nonprofit agencies to provide health care services, which can include providing injectable naltrexone to formerly incarcerated individuals. This partnership can facilitate the ability for pharmacies to provide these services.
Chapter 153: Health care information	
153.87 The department of administration shall issue a request for proposals to establish and maintain an opioid and methamphetamine data system to collect, format, analyze, and disseminate information on opioid and methamphetamine use, which shall include 1) the number of opioid treatment centers in the state and 2) the number of persons who are incarcerated, on extended supervision or probation, or on parole and who are receiving naltrexone for extended-release in injectable suspension.	If pharmacists are included as resources for opioid treatment, the collection and dissemination of this information can increase awareness of community pharmacist-provided injectable naltrexone. If they are not included, this creates another barrier to awareness. Additionally, information regarding justice-impacted individuals receiving injectable naltrexone further highlights the need for community pharmacist involvement and role they can play in providing injectable naltrexone to formerly incarcerated individuals.
Chapter 301: Corrections	
301.068(1-2) The department shall establish community services that have the goals of increasing public safety, reducing the risk that offenders on community supervision will reoffend, and reducing recidivism rates. In establishing community services, the department shall consider the capacity of existing services and any needs that are not met by existing services. The community services to reduce recidivism shall include: 1) alcohol and other drug treatment, including residential treatment, outpatient treatment, and aftercare and 2) treatment and services that evidence has shown to be successful and to reduce recidivism. 301.095 The council on offender reentry shall do all of the following: 1) coordinate reentry initiatives and research federal grant opportunities, 2) identify methods to	Increasing access to community pharmacist-provided injectable naltrexone aligns with the department's commitment to reduce recidivism by facilitating outpatient drug treatment. Additionally, many incarcerated individuals lack access to MOUD upon reentry, highlighting an unmet need that can be partly addressed by increasing community pharmacies involvement. The council of offender reentry can facilitate awareness of community pharmacist-provided injectable naltrexone services, especially among formerly incarcerated individuals reentering the community, and

improve collaboration and coordination of offender transition services, 3) identify funding opportunities to maximize the use of state and community-based services as the services relate to reentry, 4) identify and review existing reentry policies, programs, and procedures, 5) promote collaboration and communication between the department and community organizations that work in offender reentry, 6) work to include victims in the reentry process and promote services for victims while the offenders are incarcerated and after the offenders are released.	include these services within existing policies and programs. Collaboration between the council and community pharmacists can promote direct access to treatment for formerly incarcerated individuals and potentially provide community pharmacies with additional funding to provide services.
Chapter 450: Pharmacy examining board	
450.033 A pharmacist may perform any patient care service delegated to the pharmacist by a physician.	Pharmacists are allowed to perform care delegated by a physician, including care for formerly incarcerated individuals. This care can be related to OUD treatment or other health conditions.
450.035(1)(r) A pharmacist may not administer by injection a prescribed drug product or device unless he or she has successfully completed a course of study and training in administration technique conducted by a course provider approved by the Accreditation Council for Pharmacy Education or the board.	The required training may create a barrier for community pharmacists to provide these services, which include injectable naltrexone.
450.085(1) An applicant for renewal of a license shall submit proof that he or she has completed, within the 2-year period immediately preceding the date of his or her application, 30 hours of continuing education in courses conducted by a provider that is approved by the Accreditation Council for Pharmacy Education or in courses approved by the board.	Continuing education can provide an opportunity for community pharmacists to increase their knowledge about OUD, OUD treatment (including injectable naltrexone), and caring for formerly incarcerated individuals. However, only approved courses can apply toward license renewal.

Additionally, 12 Wisconsin administrative code chapters included subsections with implications for community pharmacist-provided injectable naltrexone services for formerly incarcerated individuals. These 12 chapters are outlined in Table 5.5. From these 12 chapters, a total of 31 subsections were identified. These subsections and the corresponding implications are summarized in Table 5.6.

Table 5.5. Wisconsin administrative code chapters with implications for community pharmacist-provided injectable naltrexone for formerly incarcerated individuals

Chapter numbers and titles
• Department of Corrections (DOC) Chapter 302: Inmate classification, sentence, and release provisions • Department of Corrections (DOC) Chapter 333: Incentive sanctions • Department of Children and Families (DCF) Chapter 105: Substance Abuse Screening, Testing and Treatment for Certain Department Work Experience Programs • Department of Health Services (DHS) Chapter 36: Comprehensive community services for persons with mental disorders and substance-use disorders • Department of Health Services (DHS) Chapter 38: Substance Abuse Screening, Testing and Treatment for Certain Department Employment and Training Programs • Department of Health Services (DHS) Chapter 66: Treatment Alternative Program • Department of Health Services (DHS) Chapter 75: Community Substance Use Services Standards • Department of Health Services (DHS) Chapter 83: Community-based residential facilities • Department of Health Services (DHS) Chapter 107: Covered services • Office of the Commissioner of Insurance (Ins) Chapter 8: Employee Welfare Funds; Employee Benefit Plan Administrators; Small Employer Health Insurance • Pharmacy Examining Board (Phar) Chapter 7: Pharmacy practice • Pharmacy Examining Board (Phar) Chapter 16: Continuing education for pharmacists

Table 5.6. Summaries of administrative code subsections and implications

Sections/citations	Implications
Chapter 302: Inmate classification, sentence, and release provisions	
302.34(7) If the special action release (SAR) is granted, the secretary may impose in writing any special conditions that are appropriate. The conditions that the secretary may impose include requirements for outpatient treatment, including treatment for alcohol abuse or other drug abuse.	This further highlights the need for outpatient MOUD providers/injectors, especially for individuals on special action release who need treatment. Community pharmacists can be a resource for addressing this need.
302.35(3) The department shall consider all of the following when making a decision to release an inmate under this section: 1) the inmate can complete programming and treatment in the community without presenting undue risk and 2) the inmate has developed an adequate release plan.	Community pharmacists can serve as a valuable resource for ensuring the release of individuals by being involved in the release plan and providing community-based OUD treatment.
Chapter 333: Incentive sanctions	
333.05(2) Division of intensive sanctions (DIS) staff shall explain to the inmate the DIS rules of supervision and describe the treatment and services available, including mental health outpatient treatment and services and alcohol or other drug abuse outpatient treatment and services.	DIS staff can increase awareness of community pharmacist-provided injectable naltrexone services by informing those in the intensive sanctions program of this treatment option.
Chapter 105: Substance Abuse Screening, Testing and Treatment for Certain Department Work Experience Programs	

105.06(1-2) Every individual who tests positive for the use of a controlled substance without presenting evidence of a valid prescription shall be required to participate in treatment in order to be eligible to participate in a work experience program. The administering agency shall provide information to every individual required to participate in controlled substance abuse treatment about treatment program providers.	Formerly incarcerated individuals are often required, or at least encouraged, to obtain employment and may explore work experience programs. If necessary, the administering agency could provide information on available community pharmacies that provide injectable naltrexone services.
Chapter 36: Comprehensive community services for persons with mental disorders and substance-use disorders	
36.07(3) Each comprehensive-community services (CCS) program shall have a written plan that shall include description of the currently available mental health, substance-use disorder, crisis services, and other services in the county or tribe and how the CCS will interface and enhance these services. The description shall include policies and procedures for developing and implementing collaborative arrangements and interagency agreements.	The CCS programs can facilitate awareness and use of community pharmacist-provided injectable naltrexone by including these services in their plan. Plans for collaboration and/or interagency agreements with community pharmacists can facilitate this further.
36.10(2g) Each staff member (psychiatrists, physicians, psychologists, social workers, counselors, therapists, nurses, physician assistants, occupational therapists, peer specialist, and rehabilitation workers) shall have the interpersonal skills training and experience needed to perform the staff member's assigned functions.	Community pharmacists are not explicitly included as potential staff members of CCS programs, potentially missing an opportunity to provide care, including OUD treatment, to participants who were formerly incarcerated.
36.17(4a) Psychosocial rehabilitation and treatment services shall be provided in the most natural and least restrictive manner and most integrated settings practicable consistent with current legal standards, be delivered with reasonable promptness, and build upon the natural supports available in the community.	Community pharmacists are not only legally allowed to provide naltrexone injections, but they provide an accessible location for individuals to receive treatment, especially those who are transitioning out of correctional facilities.
Chapter 38: Substance Abuse Screening, Testing and Treatment for Certain Department and Employment and Training Programs	
38.06(1-2) Every individual that tests positive for the use of a controlled substance without presenting a valid prescription shall be required to participate in trauma-informed controlled substance abuse treatment to remain eligible to participate in an employment and training program.	Formerly incarcerated individuals are often required, or at least encouraged, to obtain employment and may explore work experience programs. If necessary, treatment should be available, further highlighting the potential for community pharmacists to increase available services.
Chapter 66: Treatment Alternative Program	
66.01 The alcohol or other drug abuse (AODA) treatment alternative program (TAP) consists of grants made by the department to local agencies to provide TAP services, including assessment and treatment services, to persons likely to benefit from those services who are referred from courts, law enforcement agencies, probation and parole agents and other parts of the	Community pharmacies can potentially receive funds to provide injectable naltrexone services, specifically to individuals impacted by the criminal justice system.

criminal justice system. 66.03(1) To be eligible for a TAP grant an agency shall be certified to operate one or more AODA programs under Chapter DHS 75. 66.05 Each TAP agency shall negotiate a written agreement with local criminal justice system components to assure the effective and accountable operation of the local TAP and maintain necessary communications regarding potential clients referred from the criminal justice system. They shall also maintain working relationships and mutual agreements with treatment agencies to assure the availability of treatment agency options, effective client referrals and necessary tracking and monitoring activities. 66.08(2) Within 48 hours after the assessment is completed, a client shall be referred to a treatment program. If a treatment placement is not immediately available, TAP staff shall monitor the client during the interim period.	Certification creates a barrier for community pharmacies, as they must meet these requirements to receive funding support. TAP agencies could establish relationships and/or agreements with community pharmacies to ensure availability of treatment, especially for individuals reentering the community from the criminal justice system. This highlights the importance of available treatment for those with substance use disorders, including OUD. Community pharmacists can help improve the availability of services, specifically injectable naltrexone services.
Chapter 75: Community Substance Use Services Standards	
75.12 All requirements in this chapter shall also be applicable to telehealth services delivered under this chapter. 75.18 A service shall have a service director, clinical supervisor, substance abuse counselor, prescribers, nurses, and mental health professionals, 75.49 "Outpatient substance use treatment service" means a non-residential treatment service in which substance use treatment personnel provide screening, assessment, and treatment for substance use disorders. A service may provide outpatient substance use treatment services in the community or other locations, provided all requirements of this chapter are able to be met in the setting, the services has written policies and procedures, and the services provides annual training for all staff. 75.59(1-2, 10) "Opioid treatment program," or "OTP," means a service that provides for the management and rehabilitation of persons with an opioid use disorder through the use of FDA-approved medications. Additionally, OTPs shall provide adequate medical, counseling, vocational, educational, and other assessment and treatment services. For medical needs	Prescription requirements create a barrier for individuals to utilize community pharmacist-provided injectable naltrexone. Obtaining a prescription via telehealth can help alleviate this barrier. Pharmacists are not listed as necessary staff for substance use treatment services, potentially creating a barrier to the recognition and inclusion of community pharmacists in these services. While a community pharmacist can provide naltrexone injections, they must meet other requirements to be considered an "outpatient substance use treatment service," potentially creating barriers to awareness of community pharmacist-provided services or funding opportunities for community pharmacies. While a community pharmacist can provide naltrexone injections, they must meet other requirements to be considered an "opioid treatment program," potentially creating barriers to awareness of community pharmacist-provided services or funding opportunities for community pharmacies.

of a patient that exceed the scope of the service under this chapter, the service shall coordinate with appropriate medical providers.	
Chapter 83: Community-based residential facilities	
83.37(1)(e) If residents' medications are administered by a community-based residential facility (CBRF) employee, the CBRF shall arrange for a pharmacist or a physician to review each resident's medication regimen. This review shall occur within 30 days before or 30 days after the resident's admission, whenever there is a significant change in medication, and at least every 12 months. At least annually, the CBRF shall have a physician, pharmacist, or registered nurse conduct an on-site review of the CBRF's medication administration and medication storage systems.	Formerly incarcerated individuals may utilize a CBRF. Pharmacists can be involved in the medication review process for individuals at a CBRF. This provides an opportunity for pharmacists to also provide MOUD treatment services, including administering injectable naltrexone, to residents.
83.37(1)(h) When a psychotropic medication is prescribed for a resident, the CBRF shall ensure the resident is reassessed by a pharmacist, practitioner or registered nurse at least quarterly.	Pharmacists can also be involved in the assessment of individuals receiving psychotropic medications. This provides an opportunity for pharmacists to also be involved with MOUD, especially considering many individuals using MOUD also use psychotropic medications.
83.37(1)(k) The CBRF shall report all errors in the administration of medication, any adverse drug reactions, and any resident who refuses a medication for two consecutive days to a licensed practitioner, supervising nurse or pharmacist immediately.	CBRFs have multiple opportunities to interact with pharmacists, which can support relationships between a CBRF and a community pharmacist. This relationship could facilitate collaboration for OUD services, including providing injectable naltrexone to individuals who need this treatment.
83.37(2)(b) When medication administration is supervised by a pharmacist, the CBRF shall ensure that the pharmacist coordinates, directs and inspects the administration of medications and the medication administration system, participates in the resident's assessment and development and review of the individual service plan regarding medical conditions and goals of the medication regimen.	Pharmacists can administer medications in a CBRF, which opens the door for them to provide naltrexone injections for residents, including those who were formerly incarcerated.
83.37(2)(e) Injectables, nebulizers, stomal and enteral medications, and medications, treatments or preparations delivered vaginally or rectally shall be administered by a registered nurse or by a licensed practical nurse within the scope of their license.	This language limits the administration of injectable medications, which would include injectable naltrexone, to a registered nurse or licensed practical nurse. This creates a barrier for pharmacists to provide naltrexone injects, even if they are involved with the administration of other medications.
83.37(1)(h) The CBRF shall provide medication administration appropriate to the resident's needs	Residents of a CBRF, including formerly incarcerated residents, are able to receive MOUD if necessary.
83.38(1)(k) The CBRF shall provide or arrange transportation when needed for medical appointments, work,	The CBRF could also utilize transportation services to connect residents (including formerly incarcerated residents) to community pharmacist-provided naltrexone

educational or training programs, religious services and for a reasonable number of community activities of interest.	injections.
Chapter 107: Covered services	
107.10 (1) Drugs and drug products covered by Medical Assistance (MA) include legend and non-legend drugs and supplies listed in the Wisconsin Medicaid drug index which are prescribed by a physician, dentist, optometrist, advanced practice nurse, or when a physician delegates the prescribing of drugs to a nurse practitioner or to a physician's assistant.	Coverage by Medical Assistance can facilitate access to drugs, including injectable naltrexone. This further highlights the importance of access to Medical Assistance for formerly incarcerated individuals.
107.10(5) The pharmacist shall review the drug therapy before each prescription is filled or delivered to an MA recipient and offer consultation.	Pharmacists are responsible for reviewing all drug therapies, including injectable naltrexone. This includes ensuring the medication is safe with all of the patient's prescription medications. Pharmacists can face barriers to accessing patient information for formerly incarcerated individuals, making it difficult to meet this requirement.
Chapter 8: Employee Welfare Funds; Employee Benefit Plan Administrators; Small Employee Health Insurance	
8.72 (16) Each health benefit plan shall provide coverage for outpatient and transitional treatment for nervous and mental disorders and alcoholism and other drug abuse if medically necessary. .	Small employer coverage for outpatient drug abuse treatment, which can include treatment with injectable naltrexone, can facilitate the use of these services by formerly incarcerated individuals who have these plans.
Chapter 7: Pharmacy practice	
7.02(3)(a) A practitioner may transmit a prescription order electronically only if the patient approves the transmission and the prescription order is transmitted to a pharmacy designated by the patient.	Prescriptions for injectable naltrexone can be transmitted electronically. This can facilitate the use of community pharmacist-provided injections, especially if the patient is able to obtain the prescription via telehealth or the prescription is transferred directly from a correctional facility. Electronic prescriptions also provide a means for correctional providers to share patient information with pharmacists.
7.03(1) A pharmacist shall complete a drug utilization review by reviewing the patient record prior to dispensing each prescription drug order.	Pharmacists can face barriers in access to patient information for formerly incarcerated individuals, making it difficult for them to meet this requirement and provide care for this patient population.
7.13(1-4) A pharmacist may administer a drug product or device and, after administration, notify the prescribing practitioner or enter the information in a patient record system shared by the prescribing practitioner. A pharmacist may not administer an injectable drug product or device unless they have completed a course of study and training in administration technique conducted by a course provider approved by the Accreditation Council for Pharmacy Education or the board.	Pharmacists are legally authorized to provide naltrexone injections to any patient. However, they must receive additional training, which can create a barrier for pharmacists in opting to provide these services at their pharmacy.
Chapter 16: Continuing education for pharmacists	
16.02(1)	Continuing education can provide an opportunity for

Each pharmacist shall sign a statement on the application for license renewal certifying that the pharmacist has completed at least 30 hours of acceptable continuing education programs within the 2-year period immediately preceding the date of his or her application for renewal.	pharmacists to learn about injectable naltrexone and providing care for formerly incarcerated individuals, which may facilitate their willingness to provide these services.
16.03 The board recognizes only those educational programs offered by a provider approved by the Accreditation Council for Pharmacy Education at the time of attendance or other board approved programs.	Continuing education is limited to programs with ACPE or board approval, which may not include programs focused on MOUD or providing care for justice-impacted patients.

Environmental scan

The search resulted in the identification of 99 organizations, which included non-pharmacy sites that both prescribe and inject naltrexone (n=66), non-pharmacy sites that only prescribe injectable naltrexone (n=5), and community pharmacies that provide naltrexone injections (n=28). The location of each of these sites are mapped to Wisconsin in Figure 5.1, Figure 5.2, and Figure 5.3, respectively. Figure 5.4 provides a closer view of the community pharmacies that provide injectable naltrexone. As shown, the majority of sites are concentrated in Southeast Wisconsin, specifically Milwaukee and Dane Counties. The specific pharmacy sites are listed in Table 5.7, with the numbers corresponding to the numbers included on the map. Table 5.7 also includes a list of supplemental services provided by each pharmacy as identified from the manual review of the organizations' websites. The prevalence of each supplemental service is shown in Table 5.8.

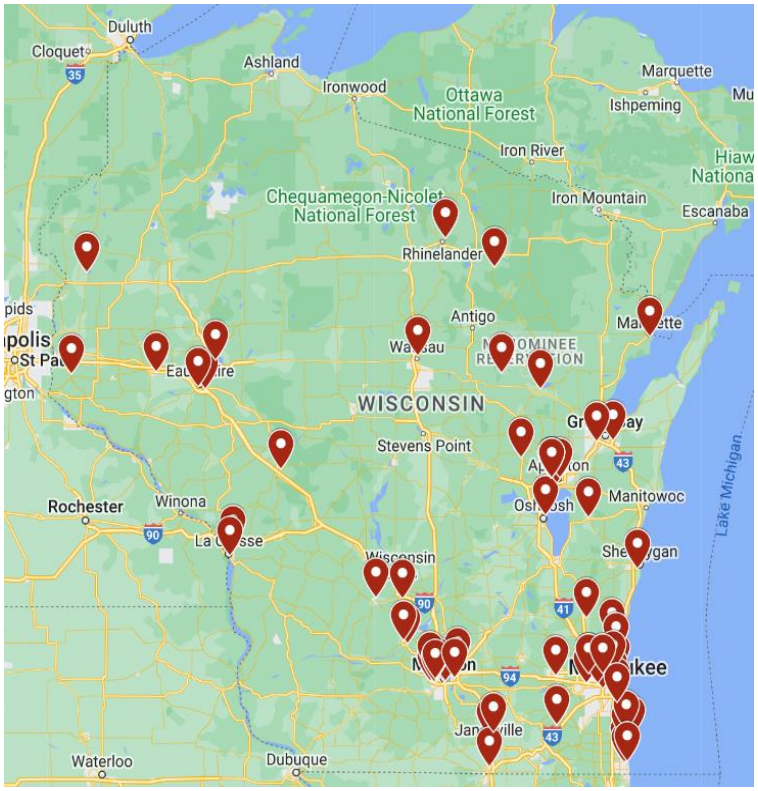

Figure 5.1. Non-pharmacist sites that both prescribe and inject naltrexone

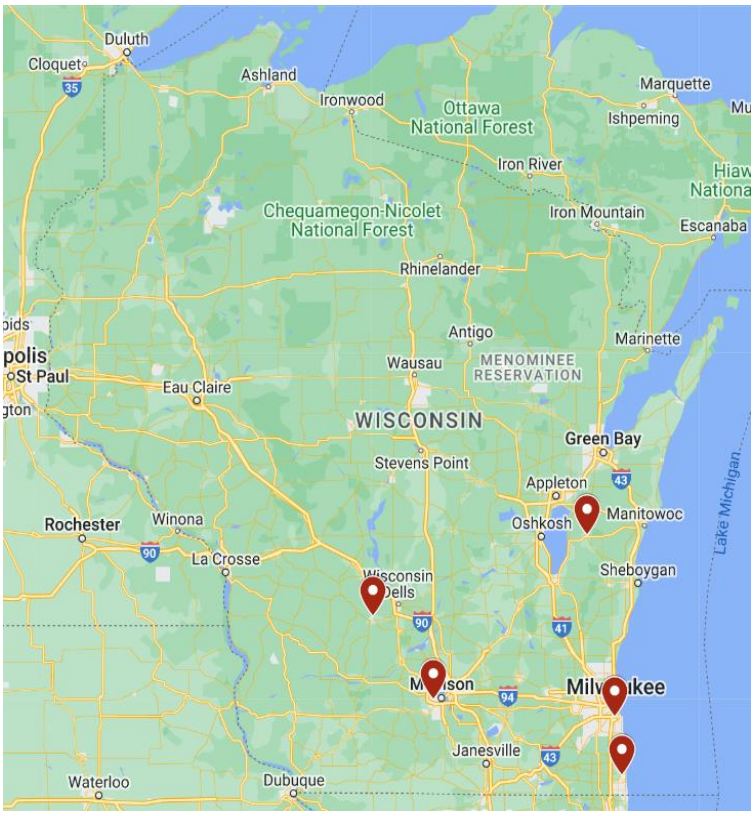

Figure 5.2. Non-pharmacist sites that only prescribe injectable naltrexone

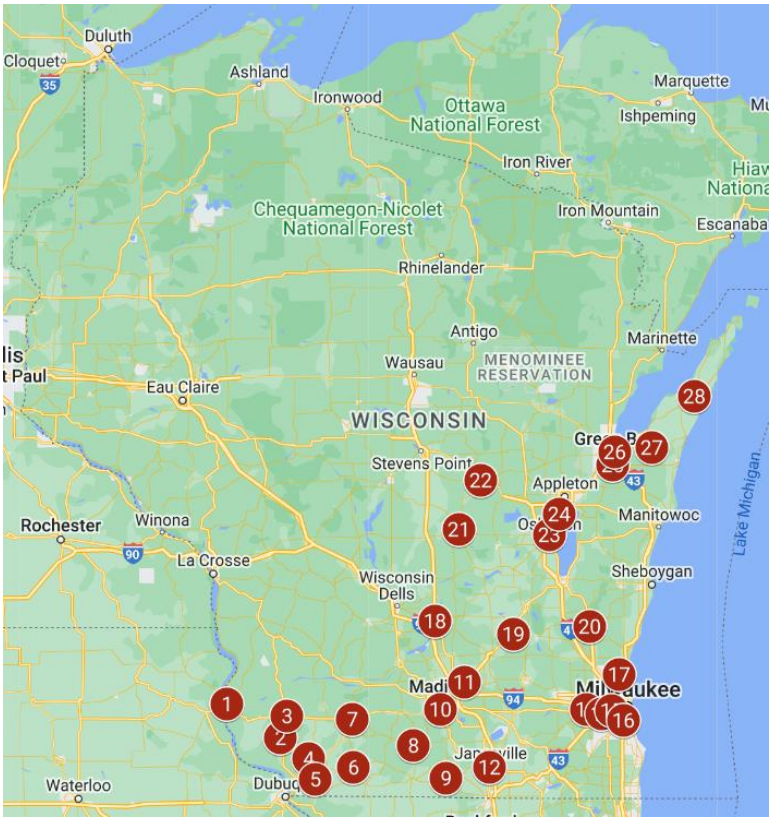

Figure 5.3. Community pharmacy sites that provide naltrexone injections

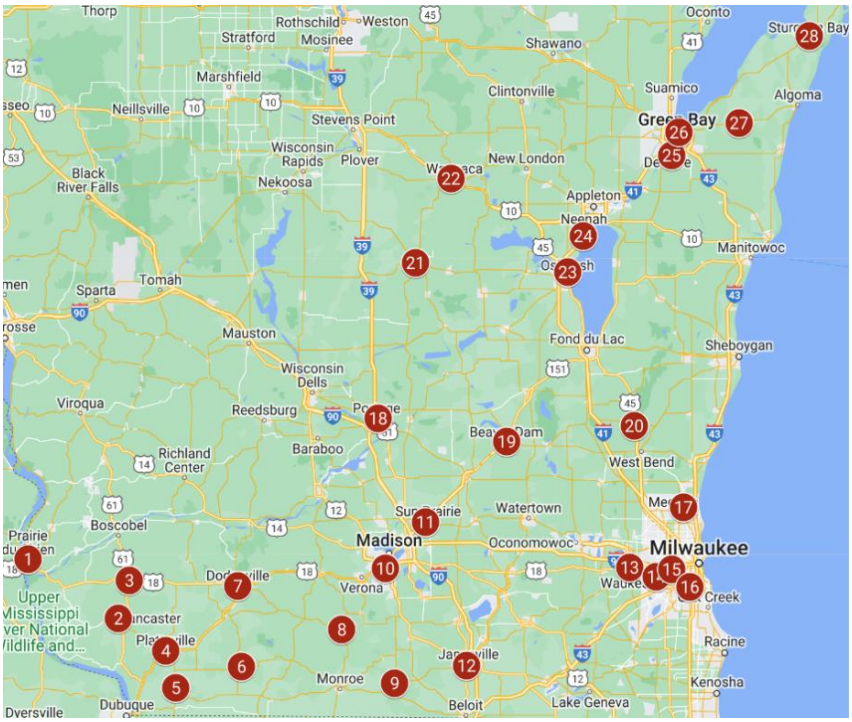

Figure 5.4. A closer view of community pharmacy sites that provide naltrexone injections

Table 5.7. Supplemental patient services in community pharmacies providing naltrexone injections

Pharmacy name	Additional services
1. Hartig Drug – Prairie du Chien	Prescription delivery, compounding, medication review, medication packaging, immunizations
2. Hartig Drug - Lancaster	Prescription delivery, compounding, medication review, medication packaging, immunizations
3. Hartig Drug – Fennimore	Prescription delivery, compounding, medication review, medication packaging, immunizations
4. Hartig Drug - Platteville	Prescription delivery, compounding, medication review, medication packaging, immunizations
5. Hometown Pharmacy – Cuba City	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
6. Hartig Drug – Darlington	Prescription delivery, compounding, medication review, medication packaging, immunizations
7. Hometown Pharmacy – Dodgeville	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
8. Hometown Pharmacy – New Glarus	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
9. Hometown Pharmacy – Broadhead	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
10. Fitchburg Family Pharmacy	Immunizations, other long-acting injections, TB testing, medication packaging
11. Hometown Pharmacy – Sun Prairie	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
12. Hometown Pharmacy - Janesville	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
13. Moreland Plaza Pharmacy	Immunizations, prescription delivery, medication packaging
14. Thrifty White Pharmacy	Medication synchronization, medication packaging, immunizations, health screenings, specialty pharmacy services
15. Evergreen Pharmacy	Assistance with financial resources, Patient Care Advocates, medication synchronization, specialty disease state education and monitoring, other LAI injections
16. Hayat Pharmacy	Immunizations, prescription delivery, medication packaging, medication synchronization, medication therapy management, medication

	disposal, community education events
17. Welltopia Pharmacy	Consultation sessions, prescription delivery, medication therapy management, medication compounding, health coach sessions, Wellness Center
18. Wilz Drug, Inc. (Hometown Pharmacy)	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
19. Hometown Pharmacy – Beaver Dam	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
20. Hometown Pharmacy - Kewaskum	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
21. Hometown Pharmacy – Wautoma	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
22. Hometown Pharmacy – Waupaca	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
23. Hometown Pharmacy – Oshkosh	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
24. Hometown Pharmacy – Neenah	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
25. Hometown Pharmacy – DePere	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing
26. Streus Pharmacy, Inc.	Prescription delivery, medication packaging, medication synchronization, immunizations, other LAI injections, medical supplies, medication reviews, primary health screenings
27. Luxemburg Pharmacy, LLC	Medication packaging, immunizations
28. Hometown Pharmacy – Sturgeon Bay	Compounding, immunizations, other long-acting injections, prescription delivery, health metrics, point-of-care testing

Table 5.8. Prevalence of supplemental services at community pharmacy sites

	Frequency (%)
Immunizations	24 (86%)
Prescription delivery	22 (79%)
Medication compounding	20 (71%)
Other long-acting injections	17 (61%)
Health screenings/metrics	17 (61%)
Point-of-care testing	15 (54%)
Medication packaging	9 (32%)
Medication review/management	6 (21%)
Medication synchronization	3 (11%)
Specialty pharmacy/disease state services	2 (7%)
TB testing	1 (4%)
Consultation sessions	1 (4%)
Health coach sessions	1 (4%)
Financial assistance	1 (4%)
Patient care advocacy services	1 (4%)
Medication disposal	1 (4%)
Community education events	1 (4%)
Medical supplies	1 (4%)

Discussion

Legal analysis

Overall, the legal scan resulted in the identification of several Wisconsin statute and administrative code subsections that have implications for community pharmacist-provided injectable naltrexone services for formerly incarcerated individuals. The majority of these subsections either 1) further emphasized the need for MOUD providers/injectors (especially for justice-impacted individuals) or 2) highlighted potential groups and programs that could collaborate with community pharmacists to provide naltrexone injection services. For example, certain release programs will only approve incarcerated individuals for release if they have a reentry plan that includes treatment for OUD treatment. Additionally, many residential facilities, including recovery and community-based facilities that often house formerly incarcerated

individuals, both allow for and often encourage active treatment for substance use disorders. The analysis also showed that certain employment opportunities and work programs require that individuals be engaged in active OUD treatment, especially if they have a positive drug screen. In each of these instances, it is crucial that MOUD prescribers and injectors are available, especially for individuals transitioning back to the community from correctional facilities. Aim 1 showed that access to treatment can be dependent on housing and financial resources. This analysis showed that a bidirectional relationship exists, and certain housing and employment opportunities are also dependent on access to treatment.

As mentioned, several of the subsections focused on state-level groups and programs that help facilitate or provide treatment for OUD, including MOUD. While pharmacists may not be explicitly included in all of these groups and programs based on the language of the statues or administrative codes, and these sections/citations don't directly facilitate community pharmacist-provided services, they provide an opportunity for collaboration. Fostering relationships between pharmacists and these groups and programs can help improve awareness of community pharmacy services, facilitate pharmacist involvement, and increase referrals to community pharmacist-provided injectable naltrexone for individuals needing treatment. Notably, the council of offender reentry (as outline in Wisconsin Statue Chapter 301: Corrections) serves several purposes, including coordinating reentry initiatives, identifying methods to improve coordination of transition services, and promoting collaboration between the department and community organizations. Collaboration between the council of offender reentry and community pharmacies can both facilitate access to injectable naltrexone for formerly incarcerated individuals, as well as help the council meet their goals.

In addition to highlighting the need for additional MOUD providers and potential collaborations for community pharmacists, several of the subsections serve as direct barriers and facilitators to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. Importantly, subsections of Chapter 450: Pharmacy examining board and Pharmacy Examining Board Chapter 7: Pharmacy practice provide the legal capacity for community pharmacists to provide naltrexone injections, as well as enter a collaborative practice agreement with a delegating provider. Additionally, the legislation recognizes pharmacists as providers under Medicaid, allowing them to be reimbursed for services within their scope of practice. Naturally, and as mentioned in Chapter 1, this authority facilitates the ability for community pharmacists to provide injectable naltrexone services in the first place, as well as potentially afford to provide these services.

Numerous subsections also highlight sources of state-level funding that could potentially help community pharmacists provide injectable naltrexone and treat formerly incarcerated individuals. For example, certain funding opportunities through the Department of Health Services (DHS) are focused on improving outcomes for individuals with OUD and those impacted by the criminal justice system. Community pharmacies could explore these opportunities to initiate or expand injectable naltrexone services. In addition to facilitating community pharmacists' abilities to provide MOUD services, a few subsections can directly facilitate access to treatment for individual patients. For example, Medicaid and small employer health plans provide coverage for treatments related to drug abuse treatment. Additionally, several residential facilities (including community-based residential facilities) and state-level programs provide transportation services to support individuals seeking treatment for substance use disorders. These subsections can directly improve access to community pharmacist-provided

injectable naltrexone, especially considering cost and transportation were identified as factors impacting access in Aim 1.

Opposite these facilitators, certain subsections directly or may potentially create barriers for community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. First, the legislation doesn't explicitly include and/or recognize pharmacists as clinicians in certain definitions or programs. For example, statutes related to Comprehensive Community Services (CCS) programs – which may be used by formerly incarcerated individuals seeking treatment for opioid use disorder – do not include pharmacists in their personnel policies. This can not only inhibit awareness and involvement of pharmacists in treatment services, but in some cases, this exclusion may prevent community pharmacies from pursuing certain funding opportunities related to OUD.

In addition to this exclusionary language, certain requirements outlined by the Pharmacy Examining Board may create barriers. First, in general, the law requires pharmacists to complete a review of a patient's profile prior to dispensing or administering a medication, including injectable naltrexone. However, as demonstrated in Aim 1, community pharmacists often face difficulties in accessing health information for formerly incarcerated patients. As a result, this requirement may deter community pharmacists from making the effort to connect with correctional facilities and help treat individuals upon reentry. Second, in order to provide naltrexone injections for any patient, pharmacists must complete a training course. The time required to complete this training may discourage pharmacists from doing so. Third, unlike other healthcare boards, the Pharmacy Board doesn't provide best practices for pharmacists in providing OUD services, which, again, may deter pharmacists from providing OUD services, including naltrexone injections.

Lastly, a few subsections have mixed implications for community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. First, Wisconsin law allows providers to deliver care via telehealth. This can facilitate the use of community pharmacist-provided naltrexone injections, especially if formerly incarcerated individuals are able to obtain a prescription via telehealth. However, formerly incarcerated may not have access to the resources required to attend a virtual healthcare visit (phone, computer, internet, etc.). Second, community pharmacists are required to complete 30 hours of continuing education every two years to maintain their licensure. Continuing education programs provide an opportunity to educate community pharmacists on injectable naltrexone services and/or caring for patients impacted by the criminal justice system. However, only programs approved by the Accreditation Council for Pharmacy Education (ACPE) can count toward this requirement. As a result, the ACPE should ensure that such training programs exist and are available to community pharmacists.

Environmental scan

The environmental scan provides a visual of the available injectable naltrexone services in Wisconsin. However, it also confirms what was discussed in Aim 1 – that there are a limited number of available injectable naltrexone prescribers/injectors. As shown, services are concentrated in Southeastern Wisconsin. This is true for both pharmacy and non-pharmacy services. While the most populated counties (such as Milwaukee and Dane) are in this area, there is still the need for injectable naltrexone prescribers/injectors in other parts of the state, including for formerly incarcerated individuals. For example, Figure 5.5 shows the regions of the Wisconsin DOC Division of Community Corrections (DCC), which supervises clients placed on probation or released from prison on parole or extended supervision. Figure 5.6 shows the percentage of DCC clients residing within each of these regions. As shown, 33% of clients on

probation, parole, or supervision reside in regions 5, 6, or 8 – where the availability of injectable naltrexone providers and injectors is limited (as shown in Figures 5.1-5.3).[87-88] The DOC also reported over 800 overdose events or deaths among individuals on adult community supervision in these same regions from 2018-2024, further highlighting the need for providers in these areas.[89]

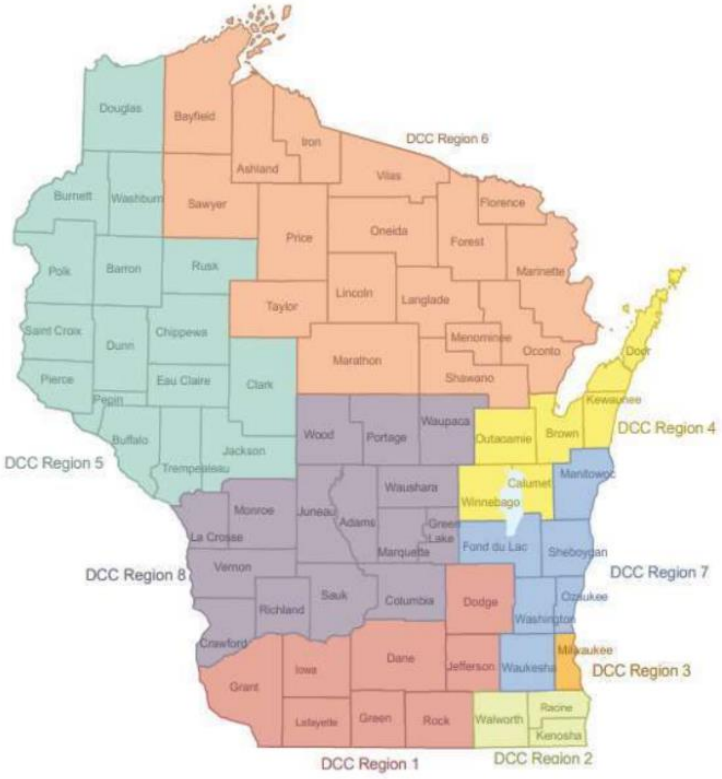

Figure 5.5. Wisconsin Division of Community Corrections (DCC) regions

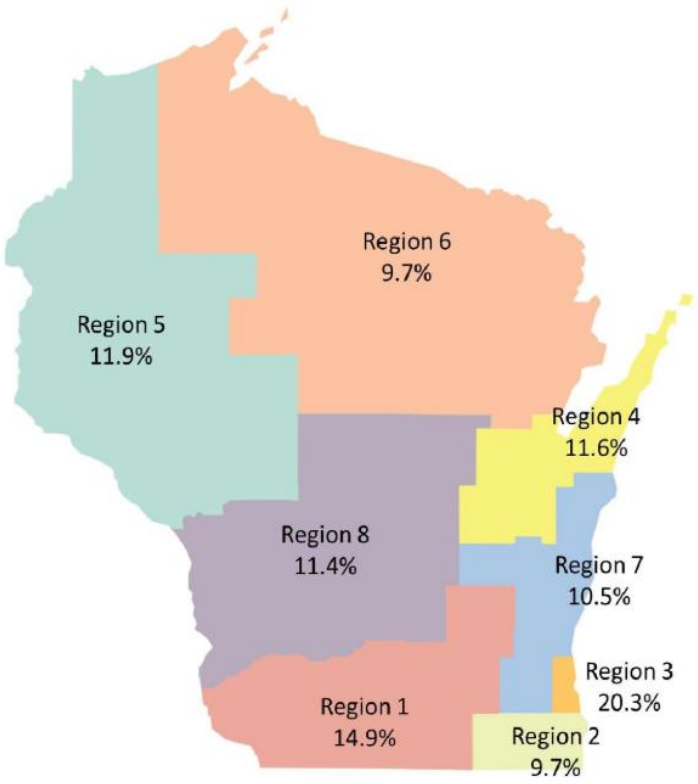

Figure 5.6. Percent of DCC clients per region

Not only are community pharmacies concentrated in certain parts of the state, but the 28 available injections sites represent only 10 community pharmacy organizations. This is despite the 837 community pharmacies that exist across Wisconsin.[44] Ultimately, there is a sufficient number of existing community pharmacies, but too few are providing injectable naltrexone. As discussed in Aim 1, MOUD providers often face high caseloads. Increasing the number of community pharmacies that provide these services can help relieve these caseloads. Additionally, community pharmacies can provide an injection site for providers that only prescribe injectable naltrexone, as shown in Figure 5.2.

The environmental scan also highlighted supplemental services offered at community pharmacies that provide injectable naltrexone, many of which can be particularly beneficial for formerly incarcerated individuals. For example, most of the pharmacies provide prescription

delivery, as well as primary care health screenings and point-of-care testing. This can be helpful for formerly incarcerated individuals who face issues with transportation or coordinating appointments with primary care providers. Many of the pharmacies also offer other long-acting injectable medications, including those for mental health conditions. Formerly incarcerated individuals with OUD often deal with mental health comorbidities and can potentially receive treatment for these conditions from community pharmacists.[90] However, the scan also revealed that these pharmacies don't provide other services related to OUD (drug testing, connection to counseling services, etc.). As shown in Aim 1, this can deter formerly incarcerated individuals from using community pharmacies for MOUD needs.

Both the legal analysis and environmental scan presented a few limitations that should be acknowledged. First, in terms of the legal analysis, it is possible that certain statutes and/or administrative codes were overlooked based on the search strategy or databases used. Additionally, for the purposes of this project, federal legislation and policies or guidelines from professional organizations were not included. It is possible that this would have provided additional implications for access and use of community pharmacist-provided injectable naltrexone for formerly incarcerated individuals in Wisconsin. Similarly, the results of the environmental scan may be limited by the strategy or terms used in the search. Identification of injectable naltrexone and supplemental services may also be limited by how community pharmacies advertise their services. Advertising was identified as a barrier in Aim 1, so it is possible that community pharmacies and/or available services would have been missed if they weren't marketed online. Finally, the providers listed on vivitrol.com can change over time. As a result, the use of this website to identify injectable naltrexone providers was limited by the time period that it was used (April 2024).

Overall, the legal analysis and environmental scan emphasized the importance of increasing the number of available injectable naltrexone providers and injectors, especially for individuals impacted by the criminal justice system. It also showed that not only do community pharmacists have the legal authority to provide naltrexone injections to formerly incarcerated individuals, but there are several groups, programs, and funding opportunities that can help facilitate these services. It is important that future work focus on increasing the number of community pharmacies that provide injectable naltrexone services, especially through helping pharmacies foster collaborations and leverage available funding. Future work should also help community pharmacists overcome barriers identified in the legislation, including training requirements. Finally, changes should be made to the existing statutes and codes to better recognize and include community pharmacists as OUD treatment providers. Each of these steps can help ensure that formerly incarcerated individuals with OUD have access to necessary treatments, including injectable naltrexone, and can thrive upon community reentry.

Chapter 6: Informing an Intervention for Improving Access to Community Pharmacist-Provided Injectable Naltrexone for Formerly Incarcerated Individuals During Community Reentry in Wisconsin

Abstract

In Wisconsin, opioid use disorder (OUD) is highly prevalent among individuals impacted by the criminal justice system. Medications for opioid use disorder (MOUD), including injectable naltrexone, are crucial for treating OUD and especially important for individuals transitioning out of correctional facilities and back into the community. Unfortunately, few formerly incarcerated individuals are able to access MOUD upon community reentry, remaining at high risk of overdose and rearrest. Community pharmacists are a promising resource for providing injectable naltrexone to formerly incarcerated individuals. However, use of community pharmacies remains low, and the current literature has not explored community pharmacists as a resource for providing injectable naltrexone to formerly incarcerated individuals. To help address this gap, Aims 1 and 2 were used to understand 1) the barriers and facilitators to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals across the Socioecological Model and 2) the availability of community pharmacist injectable naltrexone services in Wisconsin. As a next step, this Aim utilized participatory design to inform an intervention that addresses the barriers identified in previous Aims and improves access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. This study included three iterative focus groups with five community pharmacists who have experience providing naltrexone injections and treating formerly incarcerated patients. The goals of each focus group were to: 1) discuss perceptions of Aim 1 barriers and prioritize barriers to be addressed, 2) discuss and rank potential interventions to address the prioritized barriers, and 3) discuss components, delivery methods, and anticipated challenges or barriers related to the

intervention. Focus groups were analyzed via deductive content analysis using a priori categories. Based on discussions of perceived impact and feasibility, the participants prioritized two barriers to be addressed: lack of awareness of community pharmacist-provided injectable naltrexone services and lack of interagency collaboration among primary care clinics, community pharmacies, and correctional facilities. Again, based on discussions of effectiveness and feasibility, the final intervention included in-person pharmacist-led educational meetings with correctional staff. The participants also discussed specific components of the intervention, as well as anticipated challenges/barriers. Next steps include developing, implementing, and evaluating the effectiveness of the intervention on improving access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals.

Introduction

Opioid use disorder (OUD) is defined as a problematic pattern of prescription or illicit opioid use, often leading to serious health and social consequences, including overdoses.[2-3] In Wisconsin, OUD has become a prevalent public health problem. From 1999 to 2019, there was a 900% increase in opioid overdose deaths.[5] Notably, OUD is major problem among those impacted by the criminal justice system. From 2013 to 2019, the Wisconsin Department of Corrections reported 1,691 opioid-related hospitalizations among those admitted to probation and 754 opioid-related hospitalizations among those released from prison.[7]

Medications for opioid use disorder (MOUD), which includes long-acting injectable naltrexone, are a critical component in treating OUD.[8] Due to the high prevalence of OUD among those impacted by the criminal justice system, access to MOUD for these individuals is crucial. While continuation or initiation of MOUD within jails and prisons can still be improved, availability has expanded over the last decade.[9-14] However, access to MOUD for individuals transitioning out of correctional facilities and back into their communities remains highly

limited. For example, in Wisconsin, less than half of jails provide community linkage to MOUD for individuals reentering the community.[10]

Access to MOUD for these individuals is especially crucial during this time period. The first few days after release from incarceration present the greatest risk of overdose, as tolerance to opioid is lost while in jail or prison.[15] Formerly incarcerated individuals receiving MOUD are 85% less likely to die due to drug overdose in the first month after release and have a 32% lower risk of rearrest.[16] Yet, because so many formerly incarcerated individuals do not have access to MOUD during this time, they remain at a 40-fold greater likelihood of overdose following release compared to the general population.[17] Additionally, formerly incarcerated individuals account for up to 50% of overdose deaths in certain regions of the country.[33-34]

There is a clear need to increase access to MOUD for formerly incarcerated individuals during community reentry. A potential resource that may help improve access is community pharmacists. Since 2019, community pharmacists in Wisconsin have the authority to dispense and administer naltrexone injections, a treatment option that shows many benefits and is widely accepted among justice-impacted individuals. [41-42] Additionally, community pharmacists are more accessible than other healthcare providers and knowledgeable on the pharmacological aspects of MOUD.[44,47,66] However, while recent and ongoing research has focused on understanding the barriers to MOUD use and increasing access for formerly incarcerated individuals, these efforts have neglected to included community pharmacists (see Chapter 2 for more details).

To help address this gap, Aims 1 and 2 of this project was used to understand 1) the barriers and facilitators to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals across the Socioecological Model and 2) the availability of community

pharmacist injectable naltrexone services in Wisconsin. Through multi-stakeholder interviews in Aim 1, the researcher identified both barriers and facilitators at every Socioecological level. Overall, the participants identified a higher number of barriers, aligning with the idea that community pharmacist-provided injectable naltrexone is not often utilized by formerly incarcerated individuals during community reentry. While some of the barriers from Aim 1 echo what was found in previous literature related to MOUD access via non-pharmacist providers, many were specific to community pharmacies, specifically at the organizational and community level. Notably, these barriers included lack of interagency collaboration between primary care clinics, correctional facilities, and community pharmacies, lack of awareness of community pharmacist-provided injectable naltrexone services, and the inability of community pharmacies to provide additional OUD services. These were not only discussed by a significant number of participants, but participants from every or nearly every stakeholder group (see Chapter 4 for more details).

Aim 2 complemented Aim 1 by providing additional context to the public policy and community levels of the Socioecological Model. Through legislative and regulatory review, the researcher identified 24 statute subsections (from 7 chapters) and 31 administrative code subsections (from 12 chapters) in Wisconsin with implications for community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. In addition to providing the legal capacity for pharmacists to give naltrexone injections, most subsections further emphasized the need for MOUD providers/injectors (especially for justice-impacted individuals) or highlighted potential collaborators and funding opportunities that community pharmacists could leverage to provide these services. Other subsections created barriers, specifically due to language that excludes community pharmacists as OUD providers and training requirements to

provide injectable naltrexone services. Finally, the environmental scan in Aim 2 confirmed that there are a limited number of available injectable naltrexone prescribers/injectors, including in areas with a high number of formerly incarcerated individuals. Additionally, while community pharmacies that provide injectable naltrexone offer a variety of supplemental services, they don't offer additional services related to OUD treatment (see Chapter 5 for more details).

Overall, the results from Aims 1 and 2 show the important role that community pharmacists can play in increasing access to injectable naltrexone for formerly incarcerated individuals with OUD. However, the results also show that a significant number of barriers inhibit community pharmacists from providing these services and prevent formerly incarcerated individuals from accessing them. Ultimately, it is important that additional work is done to help reduce these barriers. Accordingly, the goal of Aim 3 is to utilize participatory design to inform an intervention that improves access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals during community reentry in Wisconsin.

A participatory design approach directly involves stakeholders in the development and/or implementation of a health service intervention that seeks to improve patient outcomes. There are several benefits to using this approach. First, it helps keep research relevant and allows the research to gain a better understanding of the problems that exist in healthcare. Second, participatory design keeps research transparent and allows stakeholders to take ownership of the intervention. And third, it can help foster collaboration between the researcher and stakeholder organizations, potentially building long-standing relationships. Importantly, participatory design is beneficial for the design of interventions in complex work systems, including community pharmacies and correctional facilities.[91]

The researcher will implement a participatory design approach by conducting iterative focus groups with several community pharmacists who have experience providing injectable naltrexone to formerly incarcerated patients. The focus groups will be used to: 1) discuss perceptions of the barriers identified in Aim 1, 2) prioritize which barriers can be feasibly addressed while still positively impacting access to community pharmacist-provided injectable naltrexone, 3) discuss and rank potential interventions to address the prioritized barrier(s), and 4) discuss the required components, delivery methods, and anticipated challenges or barriers of the prioritized intervention. Long-term, the information gained from the focus groups can be applied to the development of the intervention and an implementation package.

Methods

Participants and sampling

Participants were recruited for semi-structured focus groups between March 2024 and April 2024. Study participants included community pharmacists with experience administering naltrexone injections for formerly incarcerated patients. All participants were 18 years of age or older, able to speak and understand English, and residing in Wisconsin. These individuals were recruited for several reasons. First, in line with a participatory design approach, the researcher wanted to include end-users in the conceptualization of an intervention to improve availability, access, and use of community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. While there are several potential end-users (including the other stakeholders included in Aim 1), the researcher anticipated that it would be most beneficial to focus on community pharmacists, as the intervention is intended to target community pharmacist-provided services in particular. Additionally, several of the barriers identified in Aim 1 were specific to community pharmacies, especially at the organizational and community level. Ultimately, the researcher anticipated that those with these experiences could provide more

insight on interventions that address both the availability of and access to community pharmacist-provided injectable naltrexone, as well as support the needs of formerly incarcerated individuals in particular.

The researcher had established connections to several community pharmacies across Wisconsin, including Forward Pharmacy, Fitchburg Family Pharmacy, and Streu's Pharmacy Bay Natural, and leveraged these connections to identify and recruit participants. Initial recruitment was limited, as the researcher did not want to recruit more than one pharmacist from the same organization. Snowball sampling was utilized to identify and recruit additional participants who fit the inclusion criteria. In total, five community pharmacists were recruited. This study was deemed exempt by the University of Wisconsin-Madison Institutional Review Board (application 2024-0354).

Procedures

All potential participants were informed of the study and invited to participate via email (Appendix 7). Once participants committed to the study, the researcher collected availability via when2meet.com, and the focus groups were scheduled. An information sheet was then emailed to all participants (Appendix 8). The information sheet was reviewed by the researcher on the call prior to the start of the first focus group, after which verbal consent to participate was obtained. The researcher emphasized that there was no obligation to participate, and participation was voluntary and could be stopped at any time. All focus groups were conducted via Zoom by the researcher, who had previous experience conducting in-person and virtual interviews and focus groups. Focus groups were audio recorded to help facilitate transcription and took 1.5 - 2 hours each. After the focus groups, participants were sent a five-minute demographic survey

(Appendix 4). Participants were compensated with a $100 gift card for each focus group they participated in (up to $300 total).

The researcher conducted three semi-structured focus groups. The focus groups were iterative, with each focus group building off the previous one. The same group of community pharmacists participated in all three focus groups, and each focus group had a specific goal, as outlined in Table 6.1. Of note, for focus group 1, the researcher decided to concentrate the conversation on the most prevalent barriers identified from Aim 1 (those identified by at least 25% of the stakeholders). The researcher also developed a focus group guide to help prompt the conversations for all three meetings (Appendix 9). During the focus groups, the researcher utilized a digital whiteboard from an online collaboration tool (Mural) to take notes on the discussions. The researcher was able to share the digital whiteboard during the focus groups so that participants could visually track the conversations and make better connections between ideas. Before each focus group, the researcher added relevant notes from the previous discussions to the digital whiteboard. At the end of each focus group, participants were given the opportunity to share any thoughts or ideas that had not been addressed by the questions in the guide. To help ensure credibility and confirm that the focus group questions were clear and well-understood, the researcher conducted pilot focus groups with peer and senior researchers prior to the start of the project. All focus groups took place from April 2024 to May 2024.

Table 6.1. Focus group goals

Focus Group #	Goal(s)
1	• Discuss perceptions of Aim 1 barriers • Prioritize Aim 1 barriers to be addressed
2	• Discuss and rank potential interventions to address the prioritized barrier(s)
3	• Discuss the components, delivery method, and anticipated challenges or barriers related to the intervention

To maintain confidentiality, the researcher ensured that all focus groups were being conducted in a completely confidential location. The researcher instructed all participants not to share their names or any identifying information during the focus groups, as well as any information related to their patients. All transcripts were also reviewed to ensure that personal information was not mistakenly shared. While the focus group questions were not sensitive in nature, the participants were told that they did not have to share anything they were uncomfortable discussing. Finally, all interview and survey data were stored according to the University of Wisconsin-Madison policy.

Data coding and analysis

The focus groups were transcribed verbatim, de-identified and verified for accuracy. All participants were assigned an ID number. Transcripts were entered into NVivo, a qualitative data software package (released in March 2020).[80] As outlined by Elo & Kyngäs, the researcher then performed deductive content analysis to place data into a priori categories. The categories were based on the questions from the focus group guide and are outlined in Table 6.2

Table 6.2. A priori categories for deductive content analysis of focus groups

	Category description
1	Perception of barriers
2	Prioritization of barriers based on perceived impact and feasibility
3	Intervention ideas
4	Prioritization of intervention ideas based on perceived impact and feasibility
5	Intervention components and delivery methods
6	Anticipated challenges or barriers

Impact was defined by which barriers could create the largest improvements if addressed and which interventions would be the most impactful at addressing prioritized barriers. Feasibility was defined by which barriers could be practically addressed and which interventions could be practically implemented. This analysis process was used, as study participants occasionally discussed information that was relevant to questions from a different focus group. For example, although focus group 3 included questions about intervention challenges or barriers, some participants mentioned these as they prioritized intervention ideas in focus group 2. As a result, it was better to code all focus groups across the same categories, rather than create individual a priori categories for each focus group.

After the coding process, the researcher summarized the data within each category. To support dependability and confirmability, the researcher met with senior research advisors to develop categories and share and confirm summaries. Any ambiguities or coding issues were also addressed during these discussions. Finally, to support credibility, representative quotes were selected to verify the results. The researcher utilized the four-dimension criteria of qualitative research to guide the methodology.[82] Notably, similar methodology has been used by other researchers to identify and inform pharmacy-based interventions.[91-92]

Results

In total, five community pharmacists participated in all three focus groups. Participant demographics are outlined in Table 6.2. Results from the focus group are described below and separated based on the focus group number and data categories utilized during analysis. Overall, many of the participants expressed similar thoughts throughout the focus groups, especially regarding their perceptions of the barriers identified in Aim 1. Any variations or nuances between participants are discussed where applicable.

Table 6.3. Aim 3 participant demographics

	Community pharmacists (n=3)
Age	36.40
Gender	
Male	4 (80%)
Female	1 (20%)
Other	0 (0%)
Ethnicity	
Hispanic/Latino	0 (0%)
Not Hispanic or Latino	5 (100%)
Race	
White	4 (80%)
Black/African American	1 (20%)
Asian	0 (0%)
Native Hawaiian/Pacific Islander	0 (0%)
American Indian/Alaska Native	0 (0%)
Other	0 (0%)
Educational Level	
Less than high school	0 (0%)
High school or equivalent	0 (0%)
Some college, no degree	0 (0%)
Associate or Bachelor	1 (20%)
Master or above	4 (80%)

Focus Group 1

Perceptions of barriers

An image of the Mural digital whiteboard and notes from Focus Group 1 are included in Figure 6.1. The participants were first presented with the most prevalent barriers identified in Aim 1, which included: lack of reliable transportation, lack of insurance, lack of interagency collaboration between primary care clinics, community pharmacies, and correctional facilities, lack of awareness of community pharmacist-provided injectable naltrexone services, inability of pharmacists to provide additional OUD services, stigma, drug cost, and lack of available prescribers and injectors. Participants were first asked about their initial perceptions of these barriers, or if any came as a surprise. Overall, the participants stated that upon initial review, each of the barriers made sense and aligned with their perception of the current situation. One participant stated, "From my perspective, these all make sense. Especially knowing that not a lot of community pharmacies offer injectable naltrexone, at least to my knowledge," (RPh1). The rest of the community pharmacies had similar reactions and, accordingly, none of them pointed to barriers that were particularly surprising. Additionally, as highlighted in Aim 1, the participants noted that many of the barriers overlapped. One pharmacist pointed out that, "All of them line up appropriately. Especially the collaboration with primary care and correctional facilities, which kind of goes hand in hand with them now knowing that community pharmacies are able to provide this service," (Rh4). Another pharmacist noted that the inability of pharmacists to provide additional OUD services directly relates to the lack of available injection sites. Only one barrier received very minimal pushback, as one participant noted that stigma might not be a major barrier at every pharmacy, depending on whether or not the pharmacy has the ability to offer a private room for injections. If patients are aware that they can receive treatment privately, they may be less concerned with experiencing stigma.

Prioritization of barriers based on perceived impact and feasibility

To help prioritize which barriers should be targeted by a potential intervention, the participants were asked to think about which barriers, if addressed, could create the biggest improvement in access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. In other words, how effective addressing a particular barrier would be. In terms of effectiveness, the pharmacists focused on five of the eight barriers. These five barriers, as well as representative quotes, are outlined in Table 6.4

Table 6.4. Prioritized barriers based on perceived impact

Barrier	Representative quotes
Lack of awareness	"Increasing awareness of services – from the patient all the way down to the person that is leading them out of the [correctional facility]. If they know that [community pharmacists] are involved in giving these injections, that's huge. Increasing awareness, especially through increasing marketing, would be so much more impactful than connecting with [patients] by making a bunch of phone calls." - RPh2
Lack of interagency collaboration	"The collaboration. Because it is so important to make sure that the provider, the [reentry staff], and the pharmacist are on the same page." - RPh1
Stigma	"I would add stigma, especially from [the patient's] perspective. Making sure that they feel welcome and have the ability to access medications without judgement – both from a medical history and social history perspective – that is going to lean a lot into improving access." - RPh3
Inability of pharmacists to provide additional OUD services	"I think providing additional services, specifically the drug testing. If we can get down, I think, from the perspective of the pharmacy world, would help a lot." - RPh4
Drug cost	"Money makes the world run. So, not necessarily lowering the cost of the drug, but at least showing a cost-benefit, and that we are profiting off of this could really help." - RPh2

In addition to the representative quotes listed in Table 6.4, several of the community pharmacists were in agreement with each of the barriers listed. The participants were then asked to think about which barriers could be most feasibility addressed. The conversation around feasibility focused on three of the eight barriers. These barriers, as well as representative quotes, are outlined in Table 6.5.

Table 6.5. Prioritized barriers based on perceived feasibility

Barrier	Representative quotes
Lack of awareness	"Increasing awareness is [feasible]. It can happen through simple discussion with staff or with a provider. Like, 'Hey, just to you know, we provide these services.'" - RPh1
Lack of interagency collaboration	"Community pharmacists have had a successful history of creating collaborations with physicians, with practitioners for other services. So, I think that would a feasible option here." - Rh4
Lack of available prescribers and injectors	"I think increasing the number of community pharmacists who provide injections, just by getting them trained. Even if it isn't naltrexone injections right away, but just another type of injection to get them comfortable." – RPh1

Again, several of the participants agreed that the barriers listed in Table 6.5 would be the most feasible to address through the development of an intervention. Lastly, based on the discussions surrounding perceived impact and feasibility, the pharmacists were asked to select one or two of the barriers that they would target with an intervention. Unanimously, the participants selected lack of awareness and/or lack of interagency collaboration. These decisions were largely based on the fact that these barriers were perceived to be both feasible and impactful if addressed. As a result, these two barriers were used as the basis for focus group 2.

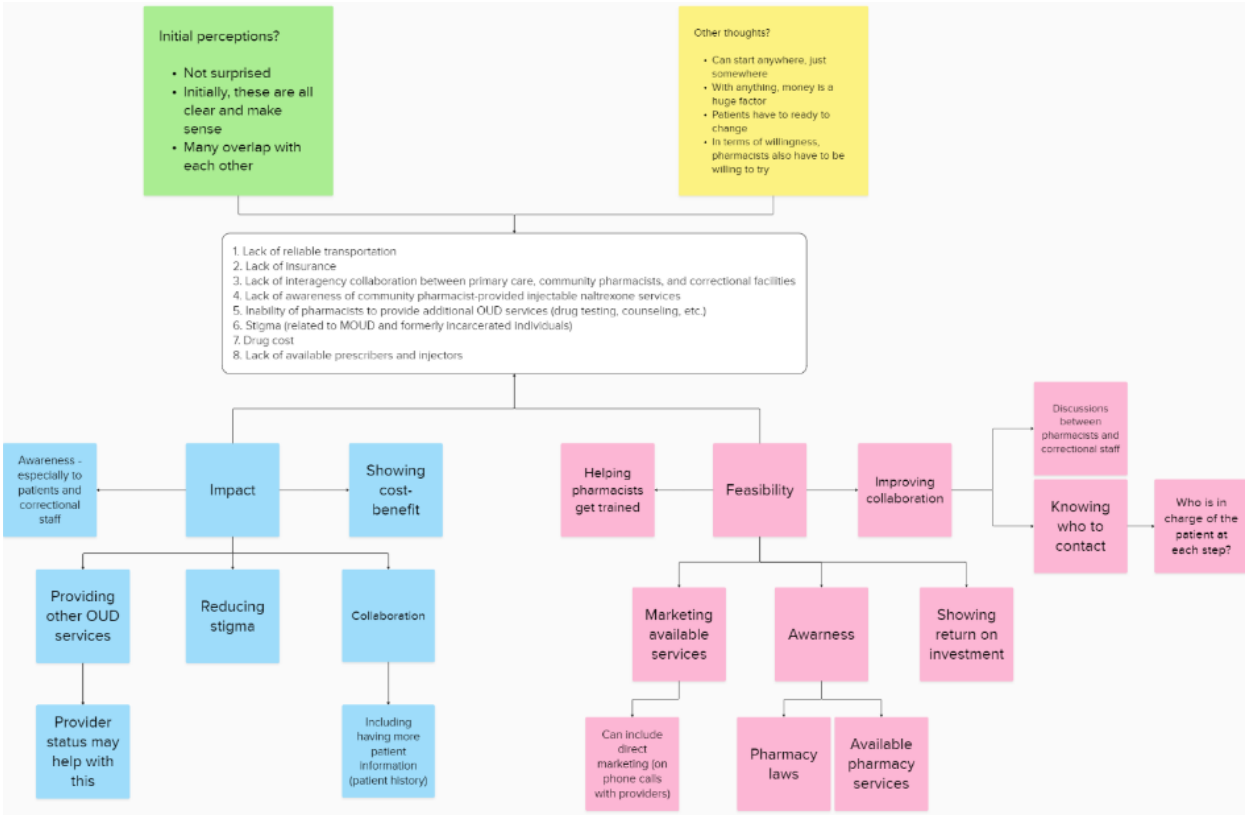

Figure 6.1. Mural digital whiteboard from Focus Group 1

Focus Group 2

Intervention ideas

Based on the results of focus group 1, the participants were instructed to focus their discussion on two barriers of interest: 1) lack of awareness of community pharmacist-provided injectable naltrexone services and 2) lack of interagency collaboration between primary care clinics, community pharmacies, and correctional facilities. First, the participants were asked to brainstorm interventions that could address at least one of these barriers, and several ideas were shared. These ideas are outlined in Table 6.6 and supplemented by representative quotes.

Table 6.6. Intervention ideas

Idea	Representative quotes
Development of a recovery clinic	"An opportunity could be, like, building out a recovery clinic where there are particular mental health providers, nurses, that can team up with community pharmacists that can dispense and provide the injection. I just think it might help to have, you know, streamlined services to specific clinics that might already have a rapport built up for opioid use disorder and have it be sent to those particular pharmacies that are providing those services." - RPh5
Adding community pharmacists to existing online resources	"I think a good first step is to get in line with the Vivitrol website. I think it's quite literally just vivitrol.com and you can find a provider. I think [providers] have to manually add themselves to that, so that'd be a really good starting point…getting [community pharmacists] as providers on that website would be a good first step." - RPh1
Development of an informational website	"Maybe, you know, we do have a website for the case managers and those who are going to be helping connect the dots that states here are all the different, you know, pharmacies that are going to be giving long-acting injections in particular. You know, this is the insurance that they take…I think there could be a website specifically for opioid use disorder." - RPh1
Development of an informational pamphlet	"We could have a little pamphlet that says, you know, it kind of goes through, you know, what opioids are. But on the front, there's a little QR code…that brings them to [injectable naltrexone] near me or something along those lines. Or where I can find a pharmacy that carriers [injectable naltrexone] and accepts certain insurance." - RhP4
Development of a central repository document	"I think there needs to be some type of central repository document. We already know that there are some places offering these services. But being able to see where these services are for, again, the staff that would help with reentry and ultimately that can get them connected to a pharmacy near that person's home, that would be very helpful." - RPh5
Pharmacist-led educational meetings with correctional staff	"Maybe setting up meetings with some of the [correctional staff] and just letting them know that this is something that we offer…I think it's building that rapport and just opening the door and saying, 'Hey, this is something that we're offering at the pharmacy.'" - RPh4 "Meetings are a great starting point. And I think education really needs to start [within corrections]. If you're looking at this specific patient population of how they are falling through the cracks and how they are winding up back behind bars, I think that is where it starts." - RPh1

	"I feel like we need to give education even further downstream. So, like, the prisons and facilities where those people who are giving the injections or the providers who did prescribe that injection in the prison can be able to then find the resources to connect them to the particular [community pharmacies] they could be. I almost feel like that's where it should start at first." - RPh5

Prioritization of intervention ideas based on perceived impact and feasibility

Participants were asked to consider which intervention, if implemented, could create the biggest improvement in access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. They were also asked to consider which intervention would be most feasible to implement as a starting point. Not only did several community pharmacists identify community pharmacist-led educational meetings with correctional staff as a potential solution, but this intervention was almost immediately prioritized by the participants. In thinking about impact, one participant stated, "Yeah, if there's anything coming out of this, it's education so that [correctional staff] understand that community pharmacies offer [injectable naltrexone] services and understand the steps to use them. That education needs to happen. It would be the best thing to come from this," (RPh3). The rest of the participants agreed with this statement and added that educating correctional staff on available community pharmacist-provided injectable naltrexone services could create a significant impact on connecting formerly incarcerated individuals to these treatments. Additionally, the participants unanimously agreed that educational meetings would not only be a feasible option, but provide the best balance between impact and feasibility.

The participants mentioned several other reasons that pharmacist-led educational meetings with correctional staff should be a prioritized intervention. First, a few of the pharmacists stated that it is important to start at the source of the problem. Since formerly incarcerated individuals are reentering the community from correctional facilities, an

intervention should be targeted at those who are involved in reentry at that point in time. Second, the participants explained that these meetings could accomplish several tasks. For example, the meetings could not only be used to increase awareness of community pharmacist-provided injectable naltrexone, but could also help educate correctional staff on utilizing prescriptions and what patient information is required by community pharmacists, be used as an outlet to share existing resources, and allow pharmacists and correctional staff to establish points-of-contact. Importantly, the participants mentioned that these meetings could help address both of the prioritized barriers by increasing awareness and increasing collaboration among community pharmacists and correctional staff.

In terms of the other interventions that were suggested, a few community pharmacists noted that while some were good ideas, they wouldn't be as impactful at improving access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. For example, adding community pharmacists as providers to online resource or developing an informational pamphlet may be helpful, but it would still require correctional staff and/or formerly incarcerated individuals to be aware of these resources and leverage the information on their own. Similarly, a few pharmacists noted that some of the intervention ideas would not be as feasible. Notably, while developing a recovery clinic could be very beneficial as a long-term goal, the participants mentioned that this would be difficult to implement as a first step. Based on all of these thoughts, pharmacist-led educational meetings with correctional staff was selected as the prioritized intervention.

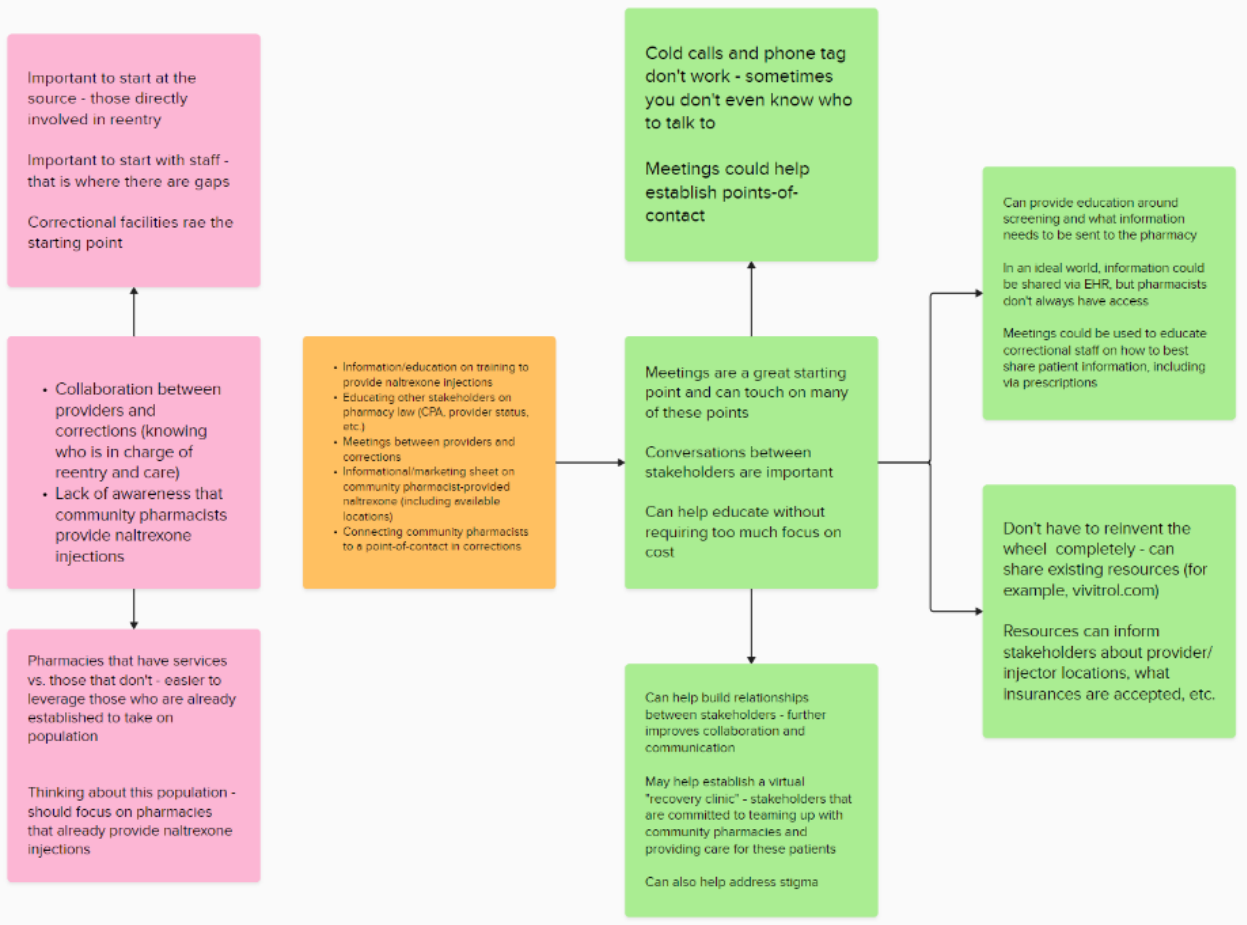

Figure 6.2. Mural digital whiteboard from Focus Group 2

Focus Group 3

Intervention components and delivery method

Based on focus group 2, the participants selected pharmacist-led educational meetings with correctional staff as the intervention of interest. In order better conceptualize and inform the development of this intervention, the participants were asked to identify components that should be included in the educational meetings, in addition to letting correctional staff know that community pharmacists are able to provide injectable naltrexone. Additional components, as well as representative quotes, are outlined in Table 6.7. Of note, and as mentioned in the Methods section, some of these components were mentioned in the previous focus group.

Table 6.7. Intervention components

Component	Representative quote
Sharing existing resources	"I'm a big fan of not reinventing the wheel. It would be helpful not to reinvent the wheel on everything. So, maybe some of these resources, like [vivitrol.com] could be shared during the meetings." – RPh3
Educating on required patient information	"I think it's important to educate on the things that are required at the pharmacy end. I think it needs to be known really by anyone who is involved with injections or reentry. Things like a diagnosis code, history of using [injectable naltrexone], date of last injection, if they've tried oral naltrexone…" - RPh4
Educating on utilizing prescriptions to provide patient information	"In an ideal world, we would love to be connected with EHR. But I even think on the prescription itself, there's an area that says 'Pharmacy Notes' that you can actually input criteria, like, you know, 'Yes, they're a candidate, this is the last time they took the drug, they have taken this medication before…' I think that would be helpful for the [correctional staff] to know, so [the pharmacist] can have some information if they're not connected to the HER." - RPh5
Establishing points-of-contact	"Sometimes you're trying to call and, you know, schedule appointments…or if [a formerly incarcerated individual] missed their appointment to try and call and get them back in for, you know, a reschedule…quite often their phone number changes, or their voicemail box has not been set up. Or you don't even have an actual address on file because they're kind of in that transitional stage where they are moving around and kind of getting reestablished. So, using [the meetings] to establish points-of-contact or contact info for social workers or case management can be huge." - RPh1
Emphasizing cost-benefit	"Make sure you mention any kind of monetary incentive for them because it's expensive to have somebody in jail and go back to jail. Injectable naltrexone is also expensive, but I could only assume that having them on monthly injection as opposed to having them in jail for another month at minimal…there's a benefit of savings right there." - RPh4
Educating on importance of enrolling individuals in insurance	"Maybe just insurance considerations. If we're talking about someone transitioning from a correctional facility to home or wherever, insurance factors into that. So, maybe including insurance considerations. And making sure that, like, the reentry staff knows they need to help these individuals kind of access insurance first before anything." - RPh1

Overall, the participants recognized that the focus on the meetings should be educating correctional providers and reentry staff on the ability of pharmacists to provide naltrexone injections for individuals transitioning out of correctional facilities and back into the community, as well as the fact that community pharmacists are accessible providers. However, the participants also agreed that the additional components outlined above could make the meetings more impactful without adding a significant amount of additional work.

The participants were also asked about how the educational meetings would best be delivered. Overall, two main considerations emerged. First, the pharmacists all agreed that the meetings should be held in-person. One participant said, "I think in-person meetings are always going to be a lot easier and more people are able to digest more information," (RPh3). Another stated, "I vote in-person. I think you can build more relationships that way and you can, you know, answer questions that might come up a little bit easier if you're in person. Things you might not have thought of when you were developing a web module or handout," (RPh4). A third added, "Yeah, I second or third in-person. For me, I think it's like, you know, building those relationships with people and kind of being able to express how emotionally invested you are as opposed to trying to imitate that via a webinar…I think having somebody in-person that can really say, 'I've seen this change people's lives.' Simple as that," (RPh1).

In addition to pushing for in-person meetings, the participants agreed that the educational meetings should be led by pharmacists who have experience providing naltrexone injections and working with formerly incarcerated patients. "I think it's definitely easier for a pharmacist that's already established [these services] to kind of take the lead on this," stated one pharmacist (RPh1). Another echoed this thought and added, "And if you have somebody from a community pharmacy that is already offering this, you automatically make that connection. So, a really good

strength of having [pharmacists with experience] lead is that you're creating those connections right away for those [correctional] facilities," (RPh4).

Lastly, the focus group participants were asked if there were any other stakeholders that should be included or invited to the educational meetings. Overall, the participants agreed that correctional staff (providers and reentry coordinators) should be the center of the meetings. However, there were a few additional stakeholders that the participants thought could either improve the meetings or benefit from the information shared during the meeting. One participant said that drug representatives could support the pharmacists in educating correctional staff. "One [stakeholder] that comes to mind is drug reps…They have the time and they're getting paid, and they can help with the educational piece," (RPh1). Another participant added, "I think what we're missing here is not involving social work or case management in the discussion. They really help bridge, so I would actually add having them involved in the discussion when you are having these in-person meetings," (RPh5). Lastly, one pharmacist said that it would be beneficial to involved governmental officials. They said, "I would say include someone as high up in the government for the state as you can, too. Because if you can get, like, governor's office on board or whoever the state overseer for correctional facilities is, like, and we make it a state priority, I think you'll get a lot more buy-in from the facilities themselves," (RPh4).

Anticipated challenges or barriers of intervention

Finally, the participants were asked to identify any challenges or barriers that they anticipate with developing and/or implementing community pharmacist-led educational meetings with correctional staff. Overall, three main challenges/barriers were identified. First, one participant expressed concerns with overuse of injectable naltrexone among formerly incarcerated individuals. They stated, "So, with something like injectable naltrexone, the last

thing I would want to happen is that they recognize that they can give injectable naltrexone and they start slapping it on every person that leaves that has opioid use disorder. And then these folks go back and use right away afterwards, and we have a lot more complications," (RPh4). Another participant expressed a similar concern, saying, "Providing education solely on naltrexone, on the injectable form, could lead – especially if they don't have a healthcare background – it could lead to some institutions just automatically jumping to injectable in patients that it's not idea for, which is a huge risk to that person and could lead to some really poor outcomes for those folks," (RPh1). Second, one participant said that time might be a challenge or barrier. "I think a second thing is that if we focus on individual education or, like, institution to institution, it's going to be very time consuming, even if we have the partnerships and everything like that," (RPh1). Third and finally, some of the pharmacists expressed concerns about who would be able to attend in-person meetings and whether or not those in rural areas would be excluded. "And obviously there's going to be a lot of places in the rural settings that they're not able to meet in person, so showing that you're, like, fully invested in this, that would be very helpful," (RPh5).

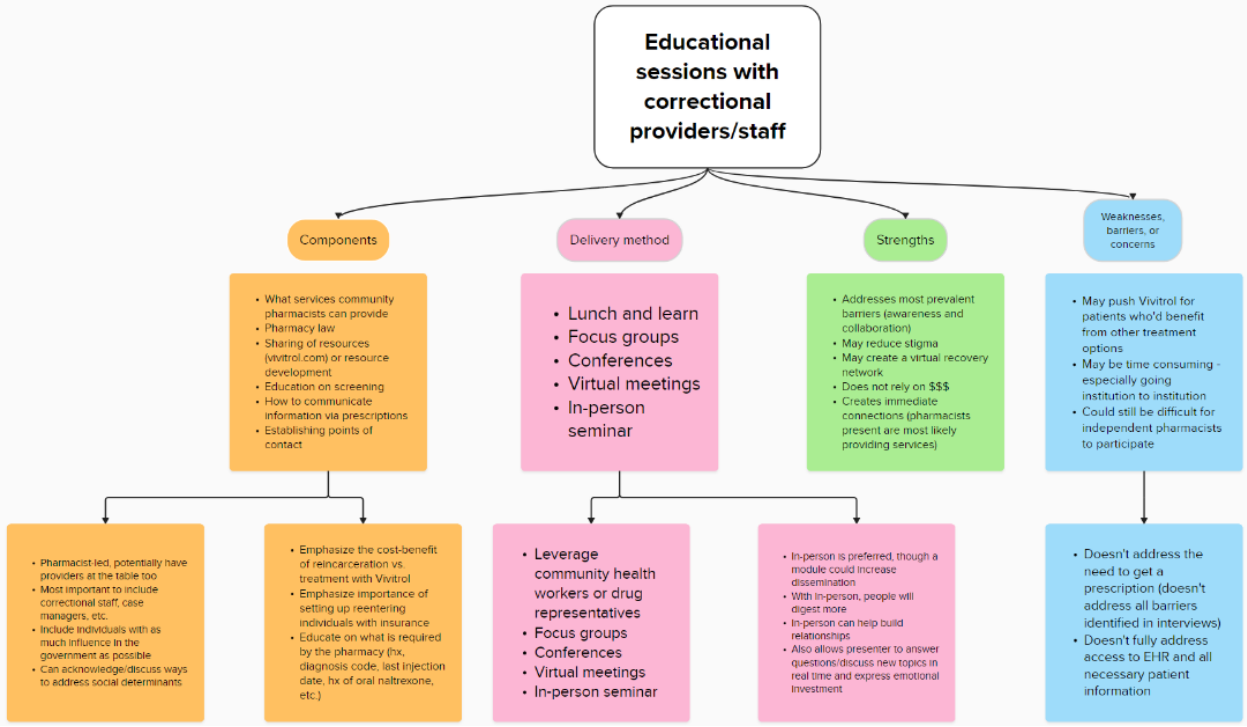

Figure 6.3 Mural digital whiteboard from Focus Group 3

Discussion

Throughout the focus groups, participants were given the opportunity to discuss and prioritize the barriers identified in Aim 1, as well as inform an intervention to address the barrier(s) with the highest priority. Across all three focus groups, there was a high level of agreement among the participants. In terms of focus group 1, all of the pharmacists had similar perceptions of the high prevalence barriers from Aim 1. In general, the participants agreed that the barriers made sense and weren't surprising given their knowledge of community pharmacist-provided injectable naltrexone and access for formerly incarcerated individuals. Overall, this is not surprising, given that the participants have experience providing injectable naltrexone for formerly incarcerated patients and have likely experienced many of the barriers that impact their day-to-day work, especially at the organizational, community, and public policy level. Additionally, and as mentioned, many of the barriers identified in Aim 1 matched those from existing literature related to MOUD access for formerly incarcerated individual and the ability of

community pharmacies to provide injectable naltrexone services.[21-31,42] As result, the participants may have been aware of several of these barriers.

Although they were not central to the focus group discussions, the participants also acknowledged legislation that was identified in Aim 2, specifically the ability for community pharmacists to be reimbursed through Medicaid for services provided within their scope of practice (provider status). As discussed in Aim 2, the participants reconfirmed that this statute could facilitate access to community pharmacist-proved injectable naltrexone.[43] Specifically, it could help community pharmacies offer additional services related to OUD, including drug testing, screening, and educating patients on injectable naltrexone. Additionally, while it won't directly reduce the cost of injectable naltrexone, provider status will help them be reimbursed for time spent giving injections, improving the cost-benefit of providing this treatment.

During the focus groups, the participants unanimously agreed that an intervention targeting awareness of community pharmacist-provided injectable naltrexone services or collaboration among primary care clinics, community pharmacies, and correctional facilities would provide the best balance between impact and feasibility. This is important, as these barriers were not only prevalent in Aim 1, but they were identified by every stakeholder group. The participants also unanimously agreed that the intervention should be targeted upstream with correctional staff. This is also important, as we know that the first several days after community reentry present the greatest risk to formerly incarcerated individuals with OUD. As a result, developing an intervention that targets corrections can help connect formerly incarcerated individuals to community pharmacist-provided injectable naltrexone as soon as they reenter. For example, it may also be beneficial to implement an intervention that increases the number community pharmacies providing injectable naltrexone or helps community pharmacies provide

additional OUD services. However, without awareness of these services by correctional staff and/or collaboration between corrections and community pharmacies, formerly incarcerated individuals may still be left to find and access these services on their own.

Notably, the intervention that was informed by the focus group participants can help address both of the prioritized barriers (lack of awareness and lack of collaboration), which is especially beneficial for the reasons mentioned above. Not only that, but the specific intervention components added by the focus group participants can help address other barriers that were previously identified, making the meetings a multipurpose intervention. For example, the participants stated that during the educational meetings, the pharmacists leading the meetings should stress the importance of enrolling individuals in insurance before they reenter the community. This can push reentry staff to make enrollment a priority, helping to increase insurance access for formerly incarcerated individuals before they are back in the community. Importantly, in order to address the opioid epidemic in Wisconsin, the Department of Corrections (DOC) previously created trainings to educate staff about the three MOUD options.[7] Ultimately, the intervention informed by the focus groups aligns with other opioid-focused interventions that have been implemented in correctional settings across Wisconsin.

In thinking about how to set up the educational meetings, all of the focus group participants agreed that the meetings should be led by community pharmacists with experience providing injectable naltrexone and working with formerly incarcerated individuals. However, several of the participants identified other stakeholders that could benefit from the content shared during the meetings. These included drug representatives, social workers and/or case managers, and governmental officials. Including (or at least inviting) these professionals to the educational meetings could be beneficial, as it not only incorporates other perspectives, but can further

improve awareness of community pharmacist-provided services and foster even more collaborative relationships.

In addition to these professionals, one stakeholder that was not mentioned was community health workers. Community health workers are individuals from the community who form relationships with individual patients and assist them in accessing health care and health-related resources.[93] Importantly, community health workers can help patients overcome barriers related to the social determinants of health. Previous work has shown the benefits of collaborations between community health workers and pharmacists in improving patient outcomes.[93-94] As a result, integrating community health workers into this intervention could also prove to be beneficial, especially considering many of the obstacles that formerly incarcerated individuals face in accessing care. Furthermore, it may be beneficial to include community pharmacists who don't have experience providing injectable naltrexone and/or working with formerly incarcerated individuals. While the focus group participants agreed that those with these experiences should lead the meetings, inviting other pharmacists offers them the chance to learn more about integrating injectable naltrexone services into their practice and/or the impact they can make by connecting with and treating formerly incarcerated patients. Importantly, this could also help address the lack of injection sites across Wisconsin.

As demonstrated by the third focus group, the intervention is not without potential challenges or barriers, as a few were identified by the participants. However, there are strategies that could help eliminate or at least mitigate some of these barriers. For example, the participants expressed concerns about only educating on injectable naltrexone, stating that they wouldn't want this option used for every formerly incarcerated individual with OUD. To prevent this problem, the pharmacists leading these meetings could educate on which patients benefit the

most from injectable naltrexone, discuss how to screen for these patients, and emphasize that injectable naltrexone is not the best treatment option for all individuals with OUD. They could also briefly discuss the other forms of MOUD that exist and highlight some resources that provide guidance on accessing these options if necessary. Additionally, the participants said that implementing educational meetings could be time consuming, and some expressed concerns that correctional staff in rural areas would be excluded. One way to overcome these challenges is by coordinating meetings that involve correctional staff across a certain region of Wisconsin. By scheduling these meetings in advance and utilizing central locations, those residing in rural areas may have an easier time attending. At the very least, recordings of the meetings could be sent to those who are unable to attend in-person sessions.

This Aim was not without its limitations. For starters, data collection and analysis were predominantly conducted by one researcher. As a result, the dependability and confirmability of the results may be challenged. As with Aim 1, this choice was due to limited resources, and the researcher performed steps to mitigate this limitation. Not only did the researcher use previous work with similar methodology to guide the process, but the development of coding categories and analysis of results (including any questions or ambiguities) were discussed with senior research advisors on a regular basis.[91-92] Additionally, there were a few limitations related to the transferability of the results. Because the research used convenience and snowball sampling to recruit community pharmacists, it is possible that bias was introduced. Additionally, the community pharmacists included in this study were from several counties in Wisconsin, including urban and rural areas. However, since pharmacists from every area couldn't be included, it is possible that the results do not represent the opinions and ideas of all pharmacists across Wisconsin. The participants were predominantly male, white, and did not identify as

Hispanic or Latino, resulting in a homogenous sample. Lastly, the pharmacists who choice to participate in this study are likely more open to collaboration. This may have influenced their perception of the barriers or intervention ideas, making it difficult to generalize the findings. Despite these limitations, this study was intended to be exploratory in nature, and additional work can help ensure the transferability of results.

There were also several lessons learned from this Aim. First, it is important to plan focus groups strategically, as it can be a time sensitive process. For example, planning the second or third focus group was dependent upon analyzing the data from the preceding focus group and prepping accordingly. Additionally, scheduling 1.5-2-hour focus groups with practicing community pharmacists can be difficult. As a result, it is important for the researcher to provide as much availability as possible for the participants. It is also important to keep the participants focused on the goals of the focus groups, especially with a limited amount of time. The research found that there were a few occasions where the pharmacists would veer off topic and discuss other problems related to their pharmacy services or practices. In terms of conducting the focus groups, utilizing a virtual meeting platform was convenient and increased the number of pharmacists who were able to participate. However, in-person focus groups may have been more beneficial. In-person sessions can help participants to digest more information, avoid distractions, and build relationships with others in the group. Ultimately, this aligns with the participants' thoughts on how to best deliver the intervention that was informed in this study. Finally, the researcher believes that five participants was an appropriate number, especially in relation to how long the focus groups were scheduled for. While there weren't many conflicts, an odd number may have also aided in decision making. However, the researcher also believes that the study may have benefited from one more focus group. During the second and third meetings,

there were a few times the group had to move onto the next prompt for the sake of time. A fourth meeting would have allowed for more freedom to flesh out certain ideas.

Aim 3 represents the last stage of this project. However, next steps should include the development and implementation of the resulting intervention. It is likely that the final structure and/or content of the meeting material will have to go through several iterations. Utilizing a community-engaged process can help ensure that the intervention is as meaningful and effective as possible. The researcher should also begin to connect with community pharmacists and correctional staff that would be willing to participate in pilot trials of the educational sessions. To start, the researcher could leverage relationships that were developed before or during this project. Correctional sites in Milwaukee and Brown County were most willing to collaborate and participate in research (as demonstrated by Aim 1 of this project). As a result, it may be beneficial to start in these areas. Showing success of the meetings in Milwaukee or Brown County can support implementation in other areas. In the long term, work can be done to assess the effectiveness of the educational meetings. Importantly, the intervention should be implemented in areas that have existing community pharmacist-provided injectable naltrexone services. As demonstrated in Aims 1 and 2, certain areas of Wisconsin do have these services, so the intervention should be targeted in areas that do.

As mentioned throughout the course of this project, these results (in particular, the intervention) can help improve access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals with OUD in Wisconsin. Increased access can help improve several health and social outcomes for this patient population. Importantly, access to necessary treatment can help formerly incarcerated individuals avoid the cycle of rearrest and reincarceration and thrive in society.

Chapter 7: Conclusions

As mentioned throughout each Aim of this project, medications for opioid use disorder (MOUD) are critical for formerly incarcerated individuals, especially as they transition out of correctional facilities and back into their communities.[15] These medications can not only help decrease the risk of rearrest and reincarceration, but the risk of dying due to drug overdose.[16] Unfortunately, and as shown, formerly incarcerated individuals are rarely able to access MOUD upon community reentry and continue to deal with the harmful consequences.[18-20] Without question, there is a clear need to improve access to MOUD for these individuals during the community reentry period, especially in Wisconsin.[5-7,10,15]

For several reasons, community pharmacists in Wisconsin are a promising resource for helping to address this problem. First, community pharmacies have the legal authority to provide injectable naltrexone.[42] Injectable naltrexone is not only an effective treatment option for formerly incarcerated individuals, but has been widely accepted in criminal justice settings.[41] For example, in Wisconsin, 84% of jails and 100% of prisons offering MOUD offer naltrexone. Second, community pharmacists are more accessible (based on location) than any other healthcare provider.[44,66] Finally, community pharmacists have the knowledge to educate patients on the pharmacological aspects of MOUD, are receptive to providing these medications, and have played a role in other opioid and public health programs.[45-48]

As summarized in Chapter 2, existing literature has examined barriers and facilitators impacting access to MOUD for formerly incarcerated individuals from non-pharmacist providers.[21-31] Work has also focused on developing and evaluating interventions and programs to improve access to MOUD for formerly incarcerated individuals.[50-65] Finally, previous research has assessed barriers and facilitators faced by community pharmacists in providing injectable naltrexone services.[42] However, virtually no work has been done to examine the barriers and

facilitators impacting access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals, let alone research exploring how to reduce barriers and improve access. As a result, this project aimed to fill that gap by 1) identifying the barriers and facilitators to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals (Aims 1 and 2), 2) assessing the availability of injectable naltrexone services in Wisconsin (Aim 2), and 3) informing an intervention that addresses the barriers identified in Aims 1 and 2 and improves access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals (Aim 3).

Aim 1 found that barriers and facilitators exist across the Socioecological Model and are realized by various stakeholder groups. While many of the barriers and facilitators match those identified in the existing literature, several are also specific to this patient population, MOUD option, and provider location. One of the barriers identified in Aim 1 was a lack of available injectable naltrexone providers and injectors in Wisconsin. The environmental scan in Aim 2 confirmed this finding. Additionally, Aim 2 showed that there are several statutes and administrative codes in Wisconsin that have the potential to either hinder or facilitate the ability of community pharmacists to provide injectable naltrexone and the ability of formerly incarcerated individuals to access these services. Importantly, the legislation in Wisconsin further highlights the role that community pharmacists can play in providing injectable naltrexone, as well as potential collaborators and financial resources they can leverage to implement and provide these services.

While Aims 1 and 2 highlighted many of the barriers that exist, Aim 3 helped create an action plan for reducing them. The community pharmacists who participated in Aim 3 chose to focus an intervention on two barriers: lack of awareness of community pharmacist-provided

injectable naltrexone services and lack of interagency collaboration among primary care clinics, community pharmacies, and correctional facilities. Though several intervention ideas were shared during the Aim 3 focus groups, the participants selected in-person and pharmacist-led educational meetings with correctional staff about community pharmacist-provided injectable naltrexone as the highest priority. This decision was mainly based on how impactful and feasible the intervention was perceived to be. The participants were also able to offer insight into what specific components/information should be included in the meetings, as well as anticipated challenges or barriers. This provides the researcher an opportunity to think about how to best avoid these issues during development of the intervention.

Informing an intervention was the final goal of this project. However, this work sets up several future opportunities. First, the next steps could include the development and implementation of the intervention in Wisconsin. While several intervention components have already been identified, the intervention and implementation package will have to undergo several iterations and would be best supported by a community-engaged process. Specifically, community pharmacists meeting the same inclusion criteria as Aim 3 (experience providing injectable naltrexone and treating formerly incarcerated patients) would be important collaborators. In terms of implementation and pilot testing, Aim 1 provides some insight into who to work with. While recruiting correctional staff was a major challenge in Aim 1, several staff members in Milwaukee and Brown County were more than willing to collaborate. Starting in these counties may not only be more feasible, but demonstrating success with Milwaukee and/or Brown County could open the door to working with other counties across Wisconsin. In the future, work could also be done to examine implementation outcomes and, eventually,

effectiveness of the intervention on improving access to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals with OUD.

The work done throughout this project could also serve as the basis for other research projects. First, these findings could be applied to areas outside of Wisconsin. Second, work could be done to assess the role of community pharmacists in providing injectable naltrexone for formerly incarcerated individuals with alcohol use disorder. Third, future research could explore how community pharmacists can play a role in preventing, screening for, or treating other chronic conditions among formerly incarcerated individuals. Finally, future projects could examine the role of community pharmacists in providing other MOUD treatment options and services – both for formerly incarcerated individuals and the general population.

While each Aim of this project had a specific goal(s), the long-term goal of this work is to better leverage community pharmacists and improve access to critical treatments for formerly incarcerated individuals with OUD. Access to injectable naltrexone for this patient population has several social and public health implications, including 1) decreased overdose rates, 2) decreased rearrest and reincarceration rates, 3) improved mental health outcomes, 4) improved family and community health and safety, and 6) reduced racial and ethnic health disparities. Most importantly, improving community reentry outcomes for individuals with OUD can help ensure that this population is not tossed aside, but given the chance to reintegrate into society and find success, health, and happiness.

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Appendices

Appendix 1: Literature review search string used for all databases

(prisoner OR prison OR jail OR inmate OR criminal OR criminal justice system OR corrections OR correctional OR correctional facility OR justice OR justice-impacted OR justice-involved OR incarcerated OR incarceration OR formerly incarcerated OR previously incarcerated) AND (opioid use disorder OR OUD OR opioid addiction OR opioid abuse OR opioid dependence) AND (medications for opioid use disorder OR medications for OUD OR MOUD OR OUD treatment OR medication-assisted treatment OR MAT OR methadone OR buprenorphine OR naltrexone) AND (transition OR community transition OR reentry OR re-entry OR community reentry OR community re-entry OR decarceration OR reintegration OR community reintegration OR post-incarceration OR post-release)

Appendix 2: Aim 1 recruitment email

Hello _____,

Dr. Jason Chladek and Dr. Michelle Chui at the University of Wisconsin-Madison School of Pharmacy are engaged in a research study to better understand the barriers and facilitators that formerly incarcerated individuals face in accessing medications for opioid use disorder (MOUD) – specifically injectable naltrexone - from community pharmacies during community reentry. You are invited to participate in this study, as you are a: 1) an MOUD prescriber with experience providing care for formerly incarcerated patients, 2) a community pharmacist with experience administering naltrexone injections for formerly incarcerated patients, 3) a professional working in a correctional setting with experience assisting formerly incarcerated individuals with reentry planning, 4) a professional working in a community organization or non-profit with experience assisting formerly incarcerated individuals with reentry planning, or 5) an individual with a history of incarceration and using injectable naltrexone for OUD treatment OR a family member/caregiver of an individual with a history of incarceration and using injectable naltrexone for OUD treatment.

Our aim is to understand, from the perspective of various stakeholders, the barriers and facilitators to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals. This will help inform future work to improve access to this treatment option for this patient population. Participation in this study is voluntary and involves completing a 1-hour interview and 5-minute survey virtually. For more information or to participate in this study, please contact Dr. Jason Chladek via phone at 715-304-6647 or via email at jchladek@wisc.edu.

If you do not want to be on the email list for this study, please respond to this email with a request to be removed.

Thank you,

(Signature)

Study Title: Barriers and Facilitators to Community Pharmacist-Provided Injectable Naltrexone for Formerly Incarcerated Individuals in Wisconsin

Appendix 3: Aim 1 information sheet

School of Pharmacy
UNIVERSITY OF WISCONSIN–MADISON

Study Participant Informed Consent Form – Interview

Title of Study: Access to Injectable Naltrexone for Formerly Incarcerated Individuals During Community Reentry: Advancing the Role of Community Pharmacists

Principal Investigator (point-of-contact): Jason Chladek, PharmD, MPH

How to contact the study team: email: jchladek@wisc.edu or call: 715-304-6647

This sheet provides key information you need to know about this study. Taking part in a study is voluntary. You can stop taking part in this study at any time, no questions asked. Feel free to ask the researchers any questions about this study. **The following consent form includes more information about taking part in this study.**

What is the purpose of the study?

To understand, from a stakeholder perspective, the barriers and facilitators that formerly incarcerated individuals face in accessing and using community pharmacist-provided Vivitrol upon community reentry.

Why are you being asked to participate in this study?

You have been asked to participate because you have self-identified as a: 1) an MOUD prescriber with experience providing care for formerly incarcerated patients, 2) a community pharmacist with experience administering naltrexone injections for formerly incarcerated patients, 3) a professional working in a correctional setting with experience assisting formerly incarcerated individuals with reentry planning, 4) a professional working in a community organization or non-profit with experience assisting formerly incarcerated individuals with reentry planning, or 5) an individual with a history of incarceration and using injectable naltrexone for OUD treatment OR a family member/caregiver of an individual with a history of incarceration and using injectable naltrexone for OUD treatment.

What will you do if you choose to participate in this study?

If you choose to participate in this study, you will be asked to take part in a 1-hour interview (via Zoom) and to complete a 5-minute survey. The interview will be recorded and transcribed. Only

the researchers will have access to the recordings. The researcher will listen to the recording and write down what you said. The recording and transcription will be saved, but no information that could identify you will be included in the transcription. The researcher will ask you various questions about your perceptions of the barriers and facilitators faced by formerly incarcerated individuals in accessing injectable naltrexone from community pharmacies upon reentry. You can choose not to answer any of the questions you are asked and can stop the interview at any time. Being in this study is voluntary. We will keep your answers confidential and will not share personal information about you with anyone outside the research team.

Are there any benefits in participating in this study?

I cannot guarantee any direct benefits to you from joining this study. However, your involvement in this study will help shape the direction of future research and interventions to improve connections between formerly incarcerated individuals and community pharmacy health services, including injectable naltrexone.

Are there any risks in participating in this study?

There is always a risk of a confidentiality breach, or of revealing personal, sensitive, or identifiable information. However, I will protect participants by deleting personal or sensitive information.

How will privacy/confidentiality be protected?

Participants' privacy and confidentiality will be protected in various ways. The interview will be conducted in a confidential and safe space, identifiable information will be omitted from the recordings and transcripts, and interview materials will be destroyed after they have been analyzed. All data collected will be secured in a safe and secure location that only the study team has access to.

Will my data be used for future research?

This study is collecting interview and survey data from you. We would like to make your data available for other research studies that may be done in the future. We plan to keep your data indefinitely. We will do our best to protect your data during storage. Your name and identifying information will be removed from the data before they are stored. Researchers therefore cannot easily link your identifying information to the data. However, there remains a possibility someone could identify you, or people who are not supposed to might access your data. In either case we cannot reduce the risk to zero.

Will there be compensation for participation in the study?

You will receive a $60 gift card upon completion of the interview and survey.

Who to contact with questions?

Participating in this research is voluntary. If you have questions about the research, you should contact Jason Chladek at jchladek@wisc.edu or 715-304-6647.

Agreement to participate in this study and permission to use:

I have read this consent and authorization form describing the research study procedures, risks, and benefits. I have had a chance to ask questions about the research study, and I have received answers to my questions. By continuing, I agree to participate in this research study, and permit the researcher to use the information I have provided today in their study.

Appendix 4: Demographic survey

Stakeholder Demographic Survey

1. What is your age? _____

2. What is your gender?
   - Female
   - Male
   - Prefer to self-describe _____
   - Prefer not to say

3. Are you of Hispanic or Latino origin or descent?
   - Yes, Hispanic or Latino
   - No, not Hispanic or Latino

4. What is your race? *(Please check all that apply)*
   - White
   - Black or African American
   - Asian
   - Native Hawaiian or Other Pacific Islander
   - American Indian or Alaska Native
   - Other _____

5. What is your highest educational level?
   - Less than high school
   - High school or equivalent
   - Some college, no degree
   - Associate's degree
   - Bachelor's degree
   - Master's degree
   - Doctorate degree

Please provide an email address for payment and potential follow-up by the researcher:

_____

Appendix 5: Interview guide for MOUD providers, community pharmacists, correctional staff, or community organization or non-profit staff

Hello, and thank you for agreeing to participate in an interview! As a reminder, the goal of this project is to understand, from a stakeholder perspective, the barriers and facilitators that formerly incarcerated individuals with OUD face in accessing community pharmacist-provided injectable naltrexone upon community reentry. Community pharmacists can legally provide naltrexone injections in Wisconsin and represent a promising resource for formerly incarcerated individuals. However, these services are underutilized. Accordingly, the researcher will ask you various questions about your perceptions of the barriers and facilitators that exist. We have reviewed the information sheet, but are there any additional questions before we begin?

1. What has been your role in providing or coordinating injectable naltrexone treatment for formerly incarcerated individuals with OUD?

   (For community pharmacist participants, skip Question 2, use Questions 3 and 4)

2. What has been your experience with formerly incarcerated patients receiving naltrexone injections via community pharmacies?
    a. If they have experience, use Questions 3 and 4
    b. If they don't have experience, use Questions 5 and 6

3. From your perspective, what facilitates community pharmacist-provided injectable naltrexone for formerly incarcerated individuals?
    a. Example probes based on the Socioecological Model:
        i. What individual resources help these individuals access treatment?
        ii. What other people/professionals these individuals access treatment?
        iii. What policies help these individuals access treatment?

4. From your perspective, what barriers exist to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals?
    a. Follow example probes from Question 3

5. Based on your knowledge of or experience with community pharmacists, what do you think could facilitate community pharmacist-provided injectable naltrexone for formerly incarcerated individuals?
    a. Follow example probes from Question 3

6. Based on your knowledge of experience with community pharmacists, what do you think creates barriers to community pharmacist-provided injectable naltrexone for formerly incarcerated individuals?

7. For formerly incarcerated individuals, what are the pros and cons of community pharmacist-provided injectable naltrexone vs. receiving injections from a non-pharmacist provider?

8. What else would you like to share with me?

Appendix 6: Interview guide for patients, family members, or caregivers

Hello, and thank you for agreeing to participate in an interview! As a reminder, the goal of this project is to understand, from a stakeholder perspective, the barriers and facilitators that formerly incarcerated individuals with OUD face in accessing community pharmacist-provided injectable naltrexone upon community reentry. Community pharmacists can legally provide naltrexone injections in Wisconsin and represent a promising resource for formerly incarcerated individuals. However, these services are underutilized. Accordingly, the researcher will ask you various questions about your perceptions of the barriers and facilitators that exist. We have reviewed the information sheet, but are there any additional questions before we begin?

1. What has been (your/your family member's/your client's) experience with receiving injectable naltrexone treatment for OUD?

2. Have (you/your family member/your client) had any experience with receiving naltrexone injections from a community pharmacy?
    a. If they have experience, use Question 3 and 4
    b. If they don't have experience, use Questions 5 and 6

3. From your perspective, what facilitates or has facilitated access to community pharmacist-provided injectable naltrexone?
    a. Example probes based on the Socioecological Model:
        i. What individual resources have helped (you/your family member/your client) access treatment?
        ii. What other people/professionals have helped (you/your family member/your client) access treatment?
        iii. What policies have helped (you/your family member/your client) access treatment?

4. From your perspective, what barriers exist to community pharmacist-provided injectable naltrexone?
    a. Follow example probes from Question 3

5. Based on your knowledge of or experience with community pharmacists, what do you think could facilitate community pharmacist-provided injectable naltrexone for (you/your family member/your client)?
    a. Follow example probes from Question 3

6. Based on your knowledge of or experience with community pharmacists, what do you think creates or could create barriers to community pharmacist-provided injectable naltrexone for (you/your family member/your client)?
    a. Follow example probes from Question 3

7. In your opinion, what are the pros and cons of receiving naltrexone injections from community pharmacies vs. non-pharmacist providers?

8. What else would you like to share with me?

Appendix 7: Legal analysis search string used for all databases

(prisoner OR jail OR criminal OR correction OR justice OR incarcerated OR incarceration) OR (opioid use disorder OR substance use disorder OR drug addiction OR drug abuse OR substance abuse) OR (medication OR medications for opioid use disorder OR medication-assisted treatment OR substance use disorder treatment OR substance abuse treatment OR methadone OR buprenorphine OR naltrexone OR pharmacy OR pharmacy OR pharmacist) OR (transition OR reentry)

Appendix 8: Aim 3 recruitment email

Hello _____,

Dr. Jason Chladek and Dr. Michelle Chui at the University of Wisconsin-Madison School of Pharmacy are engaged in a research study to better understand how to address the barriers faced by formerly incarcerated individuals face in accessing naltrexone injections from community pharmacies during community reentry. You are invited to participate in this study, as you are a community pharmacist with experience providing naltrexone injections. Our aim is to understand 1) what barriers to address, 2) potential interventions to address existing barriers, and 3) the pros and cons of potential interventions.

Participation in this study is voluntary and involves completing a series of 3 focus groups. Each focus group will take place virtually via Zoom and last 1.5-2 hours. Upon completion of each focus group, you will be compensated with $100 for your participation.

For more information or to participate in this study, please contact Dr. Jason Chladek via phone at 715-304-6647 or via email at jchladek@wisc.edu. If you do not want to be on the email list for this study, please respond to this email with a request to be removed.

Thank you,

(Signature)

Study Title: Access to Vivitrol for Formerly Incarcerated Individuals During Community Reentry: Advancing the Role of Community

Appendix 9: Aim 3 information sheet

School of Pharmacy
UNIVERSITY OF WISCONSIN–MADISON

Study Participant Informed Consent Form – Focus Group

Title of Study: Access to Vivitrol for Formerly Incarcerated Individuals During Community Reentry: Advancing the Role of Community Pharmacists

Principal Investigator (point-of-contact): Jason Chladek, PharmD, MPH

How to contact the study team: email: jchladek@wisc.edu or call: 715-304-6647

This sheet provides key information you need to know about this study. Taking part in a study is voluntary. You can stop taking part in this study at any time, no questions asked. Feel free to ask the researchers any questions about this study. **The following consent form includes more information about taking part in this study.**

What is the purpose of the study?

The purpose of this study is to 1) discuss the barriers faced by formerly incarcerated individuals in accessing community pharmacist-provided naltrexone injections during community reentry, 2) identify potential interventions to address barriers, and 3) discuss the pros and cons of proposed barriers and implementation strategies.

Why are you being asked to participate in this study?

You have been asked to participate because you have self-identified as a community pharmacist in Wisconsin with experience providing naltrexone injections for formerly incarcerated individuals.

What will you do if you choose to participate in this study?

If you choose to participate in this study, you will be asked to take part in a series of 3 focus groups with other community pharmacists. Each focus group will take place virtually via Zoom and last 1.5-2 hours. The focus groups will be recorded and transcribed. Only the researchers will have access to the recordings. The researcher will listen to the recording and write down what you said. The recordings and transcriptions will be saved, but no information that could identify you will be included in the transcription. The researcher will ask you various questions about the barriers faced by formerly incarcerated individuals in accessing community pharmacist-provided naltrexone injections, and potential interventions to address these barriers. You can choose not to answer any of the questions you are asked and can stop participating in the focus group at any

time. Being in this study is voluntary. We will keep your answers confidential and will not share personal information about you with anyone outside the research team.

Are there any benefits in participating in this study?

I cannot guarantee any direct benefits to you from joining this study. However, your involvement in this study will help shape the direction of future research and interventions to improve connections between formerly incarcerated individuals and community pharmacy health services, including naltrexone injections.

Are there any risks in participating in this study?

There is always a risk of a confidentiality breach, or of revealing personal or identifiable information. However, I will protect participants by deleting personal or identifiable information.

How will privacy/confidentiality be protected?

Participants' privacy and confidentiality will be protected in various ways. The focus groups will take place virtually, and the researcher will conduct the focus groups from a confidential and safe space. Identifiable information will be omitted from the recordings and transcripts. All data collected will be secured in a safe and secure location that only the study team has access to.

The researchers will keep information that is shared in the group confidential and will not share any personal information about you or any of the group members with anyone outside the research team. We will ask you and the other people in the group to use only first names and not to share any information from the group with people outside the group. However, we cannot guarantee that each participant will keep the discussions private.

Will my data be used for future research?

We would like to make the data from the focus groups available for other research studies that may be done in the future. We plan to keep the data indefinitely. Your name and identifying information will be removed from the data before they are stored. Researchers therefore cannot easily link your identifying information to the data. However, there remains a possibility someone could identify you, or people who are not supposed to might access the data. In either case we cannot reduce the risk to zero.

Will there be compensation for participation in the study?

You will receive a $100 gift card for each focus group you participate in (up to $300 total).

Who to contact with questions?

Participating in this research is voluntary. If you have questions about the research, you should contact Jason Chladek at jchladek@wisc.edu or 715-304-6647.

Agreement to participate in this study and permission to use

I have read this consent and authorization form describing the research study procedures, risks, and benefits. I have had a chance to ask questions about the research study, and I have received answers to my questions. By continuing, I agree to participate in this research study, and permit the researcher to use the information I have provided today in their study.

Appendix 10: Guide for all focus groups

Focus Group Guide

Participatory design is an approach to design that actively involves all stakeholders at several stages of the innovation process to help ensure the result meets their needs and is usable. We will take a participatory design approach using a stakeholder group consisting of five community pharmacists.

We will have a total of three focus groups with the stakeholders:

1. Focus Group #1 purpose: introductions and discussion of barriers
2. Focus Group #2 purpose: discussion of potential interventions to address barriers
3. Focus Group #3 purpose: discussion of intervention components, delivery methods, and anticipated challenges/barriers

Focus Group #1: Introductions and discussion of barriers

Today, we will be talking about the barriers faced by formerly incarcerated individuals in accessing community pharmacist-provided naltrexone injections during community reentry.

First, let's go around and introduce ourselves.

Because we want to make sure we capture all your thoughts, we will be recording the conversation. We'll try to just have one person talk at a time, so the recording is understandable.

Today's topic is about the barriers faced by formerly incarcerated individuals in accessing and utilizing community pharmacist-provided injectable naltrexone, specifically as they transition from correctional facilities and back into the community.

Existing barriers are multifaceted and span from the system to the individual level:

- Public Policy level: cost of drug, cost of drug testing, prescription requirement
- Community level: stigma, lack of interagency collaboration, lack of awareness, lack of available prescribers/injectors
- Organizational level: administrative constraints, lack of pharmacy advertising, inability of pharmacies to provide additional OUD services
- Interpersonal level: negative home/social environment
- Individual level: lack of insurance, lack of reliable transportation, lack of stable housing, competing priorities, medication side effects

Our long-term goal is to improve access to community pharmacist-provided naltrexone injections for this patient population.

Questions:

- What is your initial gut reaction to the existing barriers?
- Are any of these surprising to you?
- Which barriers do you think are the most important to address?
- Which barriers, if addressed, could lead to the greatest improvement in access?
- Which barriers are or are not feasible to address?
- Is there anything I haven't asked about that you would like to share?

Review meeting time for the next focus group.

Focus Group #2: Discussion of potential interventions to address barriers

Everyone will re-introduce themselves.

We will start with a brief summary of what was discussed in Focus Group #1. [Show priority barriers determined from previous focus group]. Based on our last discussion, these are the barriers we identified as being important, impactful, and feasible to address.

We will focus the discussion on potential interventions to address these two barriers.

Questions:

- What potential intervention could address at least one of these barriers?
- Which intervention mentioned would be the most effective or impactful?
- Which intervention mentioned would be the most feasible to implement?
- What would you rank as the most important intervention based on our discussion?
- Is there anything I haven't asked about that you would like to share?

Review the meeting time for the next focus group.

Focus Group #3: Discussion of intervention components, delivery, and anticipated challenges or barriers

Everyone will re-introduce themselves.

We will start with a brief summary of what was discussed in Focus Group #2. [Show priority interventions determined from previous focus group]. Based on our last discussion, these are the interventions we identified as being impactful and feasible to implement.

We will focus the discussion on implementation strategies and barriers for these two interventions.

Questions:

- What are the necessary components of the intervention?
- What are the cons or anticipated barriers/challenges of this intervention?
- What is the best approach to delivering this intervention?
- What other thoughts or concerns do you have about the intervention?
- Is there anything I haven't asked about that you would like to share?

Thank you and wrap-up.